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ABSTRACT

Papers are presented from a consultation program on administration of international cooperative education exchanges. The papers provide the broad context in which the International Association for the Exchange of Students for Technical Experience/United States will develop programs and administrative services to facilitate international placements for co-op students. The contents are as follows: "A World View of Cooperative Education," by William C. Wilson; "Current Status and Future Trends of Cooperative Education Exchange in the United States," by Donald C. Hunt; "Current Status and Possible Future Trends for International Co-op Exchanges--Canada," by G. M. Lancaster; "Current Status and Possible Future Trends for International Sandwich Mode Higher Education Interchange, A United Kingdom View," by Gerald Smith; "Future Trends in International Human Resource Development--A Multinational Corporation Perspective," by George F. Garvey; "Future Trends in International Human Resource Development--A United Nations Perspective," by Virginia A. Sauerwein; "Administrative Services to Support and Facilitate International Cooperative Education and Sandwich Training Exchanges: A Proposed Role for IAESTE/US," by Robert M. Sprinkle; and a chronology of related events on international placements for students enrolled in cooperative education and sandwich training programs. (SW)

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As the chronology at the end of this report suggests, IAESTE/US has long been concerned with expanded opportunities for students enrolled in cooperative education programs to undertake at least one period of work experience in another country. Educational developments in other countries over recent years have now led to similar interests on the part of other National IAESTE committees. Thus, the Wingspread Consultation on "Administration of International Cooperative Education Exchanges" is both the culmination of a number of years of work and the beginning of positive new activities for IAESTE.

The papers presented at the Consultation serve to provide the broad context in which IAESTE/US will develop programs and administrative services to facilitate international placements for co-op students. By giving wide distribution to this report, we hope that the material presented at Wingspread will also be helpful to American schools and employers interested in providing co-op students with an international dimension to their education.

Since the founding of IAESTE in 1948, over 175,000 students have been placed, worldwide, for one-to-two practical training experiences. IAESTE/US, founded in 1968 at the Massachusetts Institute of Technology, has worked with over 5,500 students (American and foreign). Thus, the development of overseas specifically tailored to the needs of co-op students and co-op programs represents a variation on a theme and builds on an established base of experienced, professional administration of international work exchanges. As we move ahead, we will be seeking the guidance and advice of the cooperative education community to insure that our activities complement and support the educational goals and standards of the field.

Our very special thanks and appreciation go to The Johnson Foundation for helping to make the consultation possible - and in particular, to Leslie Paffrath, Henry Halsted, and Kay Mauer for their interest, cooperation, and inspired professionalism. We are also grateful to Bob Burress of Deere & Company for assistance in making this report possible; and to the Consultation participants for their contribution to this important new area of IAESTE activity.

Caryl V. Lynn, Chairman
IAESTE/US Board of Directors

WINGSPREAD

THE JOHNSON FOUNDATION — RACINE, WISCONSIN 53401

Foreword

Cooperative education has a long history. Alternating academic study with periods of employment in businesses, industry or government has been a pattern followed by a percentage of students in such countries since early times for a variety of reasons, financial as well as educational.

The concept of cooperative education in became formalized in 1906 at the University of Cincinnati and since then has become a widely followed pattern through which educators and employers cooperate. Principles and policies have been refined over the years in order to achieve an effective combination of academic excellence and carefully planned experience in the working world. The concept of cooperative education is well accepted today in many nations, with widespread participation by colleges, universities, employers, and professional organizations working together for the advancement of this mode of education.

As the world has shrunk and global interdependence has become a growing reality, interest has increased in work experience placements in a nation other than the student's country of origin. The value of student job training abroad in promoting international experience and in building technical, professional and commercial understanding between countries is increasingly recognized.

From its vantage point at the Wingspread educational conference center, a place of confluence of ideas, The Johnson Foundation has seen human problems increasing their global dimensions. We have also seen concerted efforts by governmental and private organizations to meet global needs and cooperate on a transnational basis.

International cooperative education exchanges are among the positive factors in the current world scene, contributing to the exchange of technology, and to the sharing of ideas among persons from differing cultures.

In these developments the International Association for the Exchange of Students for Technical Experience and its United States affiliate, IAESTE/US, have come to play vital roles working with educators, employers and governments in providing services to support and facilitate international cooperative education training opportunities.

Long experience and keen interest in the field of international education led The Johnson Foundation to welcome the opportunity to cooperate with IAESTE/US in convening at Wingspread a meeting of corporate and university representatives, government officials and officers of professional organizations from the United States, the United Kingdom, Canada and the United Nations. Current status and possible future trends in international co-op exchanges were the central themes of the consultations. The free, lively and informed discussions that took place at Wingspread provided for valuable sharing of information and ideas from a variety of perspectives. The views and projections set forth in this report of the Wingspread conference will be of interest to educators, employers, professional associations, governments and students in the United States and abroad.

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President
The Johnson Foundation

Henry M. Halsted
Vice President-Program
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Mr. Stephen J. Burns, Physics student, Swarthmore College;
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WINGSPREAD

ADMINISTRATION OF INTERNATIONAL COOPERATIVE EDUCATION EXCHANGES

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June 26-27, 1978

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AGENDA

Monday, June 26

1:30 P.M. **Welcome from The Johnson Foundation**

Mr. Henry M. Halsted
Vice President - Program
The Johnson Foundation

Introductions

Mr. Robert M. Sprinkle
Executive Director, IAESTE/US

Opening Statement

Mr. George F. Garvey, Manager
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(Member, IAESTE/US Board of Directors)

Cooperative Education/Sandwich Training in Other Countries: A World Overview

Mr. William C. Wilson, Associate Director
Professional Practice Division
Career Dynamics Center
University of Cincinnati

(Member, IAESTE/US National Committee)

Current Status and Possible Future Trends in Three Countries for International Co-op/Sandwich Exchanges:

United States

Mr. Donald C. Hunt, Director
Career Planning, Cooperative Education and Placement
University of Detroit

Canada

Mr. Gordon M. Lancaster, Director
Co-perative Education and Placement
Fanshawe College

(President, Canadian Co-operative Education Association)

United Kingdom

Mr. Gerald Smith, Associate Dean
School of Engineering
The Hatfield Polytechnic

(Founding and Immediate Past Chairman, Standing Conference on Overseas Placements and Exchanges; Honorary Chairman, IAESTE/UK)

3:30 P.M. **Coffee Break**

4:00 P.M. **Future Trends in International Human Resource Development**

The Multinational Corporation Perspective

Mr. George F. Garvey, Manager
Personnel and Administration
Power Systems Marketing
Westinghouse Electric Corporation

(Member, IAESTE/US Board of Directors)

The United Nations Perspective

Miss Virginia A. Sauerwein, Chief
Non-Governmental Organizations Section
Department of Economic and Social Affairs
United Nations Headquarters

6:30 P.M. **Social Hour and Dinner**

8:30 P.M. **Administrative Services to Support and Facilitate International Cooperative Education and Sandwich Training Exchanges: A Proposed Role for IAESTE/US**

Mr. Robert M. Sprinkle
Executive Director
IAESTE/US

(Member, International IAESTE Advisory Committee)

Tuesday, June 27

9:00 A.M. **Reactor Panel**

Mr. Paul A. Cook
Dr. John L. Chase
Mr. James G. Wohlford
Mr. Troy L. Wilson
Dr. Ormsbee W. Robinson

10:00 A.M.	Coffee Break
10:30 A.M.	General Discussion
12:30 P.M.	Luncheon and Closing

Special Note: The Tuesday morning reactor panel and general discussion sessions were essentially informal in nature and not of sufficiently general enough interest to justify inclusion in this publication. For those individuals interested, a mimeographed summary of the Tuesday, June 27, sessions is available at a cost of $1.00 to cover reproduction, postage, and handling from: IAESTE/US, 217 American City Building, Columbia, Maryland 21044.

A World View Of Cooperative Education

Prof. William C. Wilson

The concept of cooperative education was introduced in the United States by Dean Hermann Schneider at University of Cincinnati just over 70 years ago. As cooperative education is becoming more popular, we receive numerous phone calls, letters, and visits from people over the world wanting to know more about co-op programs. As a result of these inquiries, Dean Wanda Mosbacker (Associate Dean of Professional Practice Program) completed a research project to determine the extent of the growth and development of Cooperative Education in other nations. The information presented here today is a result of her extensive research.

As educators around the world search for models for breaking down the inflexibility in existing patterns of higher education and for making education more relevant, they are discovering the role that Cooperative Education can play in such necessary reform. Consequently, Cooperative Education is being seriously studied and adopted with increasing frequency as a viable means of Human Resource Development across virtually the entire spectrum of technical and professional careers.

In attempting to research the Growth and Development of Cooperative Education Around the World, one of the difficulties encountered is the problem of defining "Cooperative Education" so as to include all of the basic variations

of the concept. In the United States alone, we have a variety of programs which fall into the broad classification of Cooperative Education. Since Cooperative Education works best when the program is adapted to the needs of the students, the institution, and the society, there is great variation in the structure of the programs.

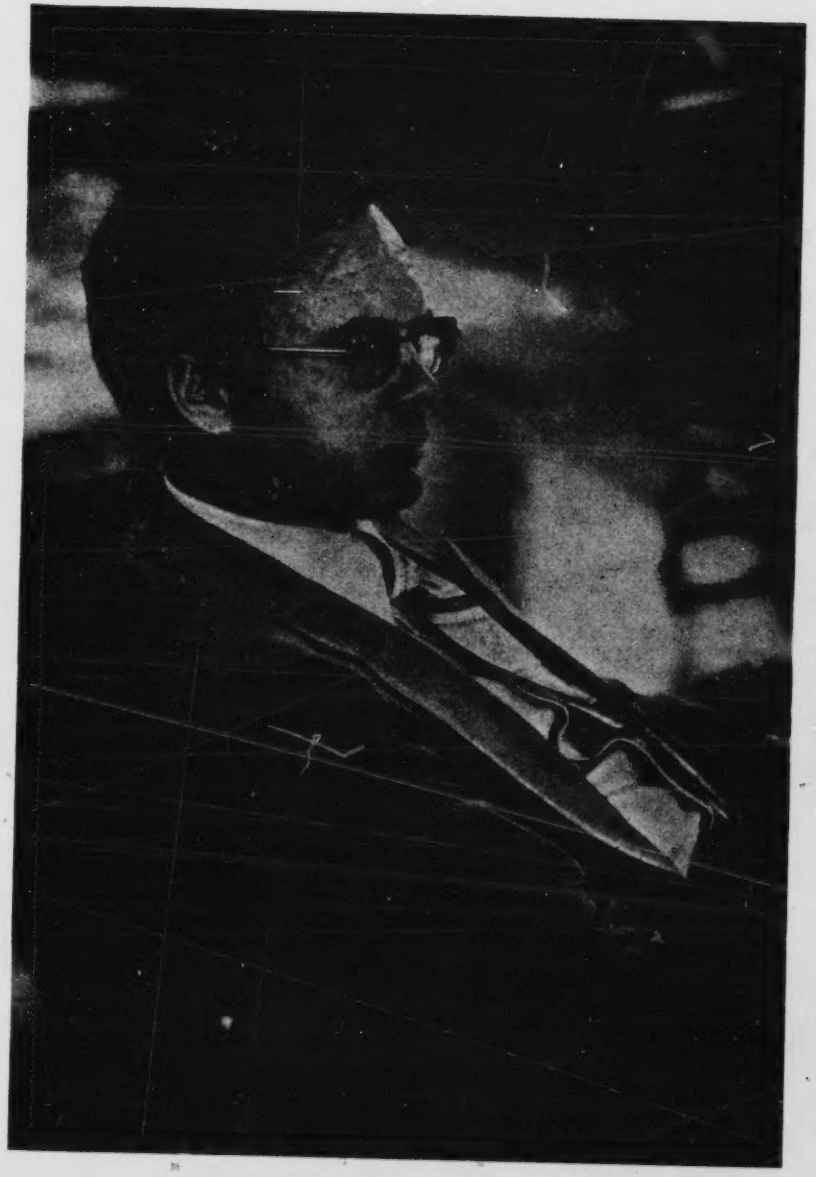
For purposes of this research project, a rather broad definition of Cooperative Education was used and is stated as follows: "That type of education which exposes the student to periods of academic study and periods of employment in business, industry, and government in which the two phases of learning relate to one another in a planned manner and in which the university or college takes the responsibility for the total educational program".

Another difficulty is the confusion surrounding the word "Cooperative". Cooperative Education is the name given to the concept by Dean Herman Schneider who first launched this system of education in the United States at the University of Cincinnati. He used the word to emphasize the cooperation required between education and business; however, in many countries the word cooperative is confused with "Cooperatives", associations established in those countries for advantageous buying and selling.

In some cases it was very difficult to identify the knowledgeable person within a particular country from whom information regarding their cooperative programs could be

obtained. As an example, representatives from three universities that offer well-established Cooperative Education Programs in a South American country, along with a member of the country's Ministry of Education, were visiting the University of Cincinnati the same week that a letter arrived from that country's embassy in Washington, D.C. stating "In reply to your inquiry concerning Cooperative Education, I wish to inform you that there are no programs of this type in_____". Even in the United States, we find faculty members within universities who are not aware that a cooperative program exists for some discipline in their universities. So with this in mind, you will understand the possibility for a Cooperative Program to be in existence in some country without our data reflecting this fact.

One hundred and twenty-five countries were contacted through their embassies, their educational and cultural ministries and through other educational leaders. On the basis of the information received from these and other sources, 286 institutions of higher learning were contacted directly to learn if they were offering Cooperative Education or similar programs. Thirty-one (31) countries reported that they are offering some form of Cooperative Education in their colleges and/or universities. These countries are Australia, Belgium, Brazil, Cameroon, Canada, Chile, Columbia, Egypt, Fiji, France, Great Britiain, Greece, Guatemala, Guyana, India, Republic of Ireland, Israel, South Korea, Lesotho, Malaysia, Mexico, Netherlands, Nigeria, Paraguay, Philippines,



Romania, South Africa, Sweden, Venezuela, Viet-Nam, and Yeman.

Additional follow-up inquiries and other sources have indicated that there are such programs of somewhat similar nature in 25 additional countries. These countries are Albania, Austria, The Peoples Republic of China, Czechoslavakia, Cuba, Ethiopia, Federal Republic of Germany, Ghana, Guinea, Hong Kong, Hungry, Iran, Iraq, Ivory Coast, Democratic Peoples Republic of Korea, Mauritius, Norway, Saudi Arabia, Senegal, Sierra Leone, Turkey, Union of Soviet Socialist Republics, Yugoslavia, Zambia.

In addition, several other nations have indicated that they are now considering such programs.

A large Spanish foundation, Foundation-Univesidad Empressa, recently allocated funds for the establishment of a model organization at the University of Madrid to assist in developing closer ties between the Spanish Universies and Spanish industries. The director of this foundation and two professors from the University of Madrid visited the United States to learn more about Cooperative Education. As a result of this visit, Dean E. Sam Sovilla of the University of Cincinnati was invited to Madrid as a consultant to the foundation on matters involving Cooperative Education.

In Costa Rica, The Ministry of Education has prepared a National Educational Development Plan calling for comprehensive reform of the educational system to make it responsive to economic development needs. It is expected that Cooperative Education will be seriously considered as one reform.

In Burma, university professors are serving on the executive boards of various industries and heading joint research projects in an attempt to foster a closer relationship with industry. It is hoped that the next step will be to include a period of practical training in all fields of study.

In Pakistan, there has been no cooperation between education and business until recently--but under the National Development Volunteers Program, the educational institutions and the industrial concerns are now planning to cooperate to provide on-the-job training.

In Singapore, the administrator of Ngee Ann Technical College has recently proposed to Fairchild Industries in Singapore that a joint training program be established for students of the college.

In Denmark, there is also evidence of a growing interest in Cooperative Education. Denmark's former Minister of Education, Helveg Petersen, wrote an article which appeared in one of Denmark's leading newspaper in June 1974 entitled "CONCERNING PRACTICAL EXPERIENCE in the SCHOOLS AND OUTSIDE," in which he emphasized that society and all industry and business functions should be incorporated in the student's education, not only as an introduction but as a necessary part of the general education.

I would like to share with you some specific data received on the various active programs around the world:

In the British Isles, Cooperative Education or the Sandwich plan has had a very successful history as I know you will be hearing from Gerald Smith.

Throughout Europe there is evidence of an increased interest and development of Co-op/Sandwich Programs.

In Sweden it was reported that two years of academic study may be combined with vocational training outside the university for future careers in secretarial work, public administration, tourism or banking. To obtain an engineering degree in Sweden, it is necessary (in addition to completing the four-year academic course) to have four months practical experience. A similar practical experience requirement was reported for schools of journalism in Stockholm and Goteborg.

During the Cultural Revolution in the People's Republic of China, the curriculum in the university programs was redesigned, making practical work experience a prerequisite to university entrance as well as a major part of the curriculum. The students, regardless of their major, are expected to work up to four months a year. As in other parts of the world, relevant assignments have been easier to obtain in science and engineering than in the liberal arts. While the students in science and engineering are provided work experience related to their majors in Chinese industries, the liberal arts students, concentrating mostly on political theory, go out into society three months each year and work in factories, shops, newspapers, at the docks or anywhere.

In Africa, numerous examples of Cooperative Education/Sandwich courses were found.

At the University of Ibadan in Nigeria, the concept was introduced to establish a close working relationship with government research institutes and industrial organizations. Each student completes 10 terms of study with 5 alternating terms of employment. The program was confined to engineering disciplines and food technology.

At the University of Yaqunde, Cameroun, a mandatory co-op program became operational in 1969 in the health professions and Medical Technology.

At the University of Natal in Durban, South Africa, a candidate for the Bachelor of Architecture must complete 12 months experience with a registered architect and the candidate for a B.S. Degree in Quantity Surveying is required to spend a portion of his last three years in school with a registered surveyor.

Out of concern over the alienation of its educated young people from their social, economic, and cultural environment, Haile Sellassie University in Ethiopia, launched the Ethiopian University Service, a program which requires every university student to spend one academic year in the provinces doing rural service in his or her field of training to qualify for a degree or diploma. The first group of students, numbering 129, were assigned to the provinces in 1964. During the ten-year period from 1964 to 1974, 3,759 students have participated successfully in the program.

Turning now to the Pacific area, the Swinburne College of Technology in Australia implemented a co-op program in 1962 and has enjoyed strong support at all levels of its administration. The Australian Government sponsored a research project to determine how Co-op/Sandwich Programs

could best be developed in that country. During the summer of 1974, Mr. Robert Davie of Swinburne personally obtained the views of employers, faculty and students in Great Britain and the United States as a part of this study.

The Fiji Islands reported that in addition to their college based Sandwich Program there has been initiated a "Day Release Courses" which allows young employees to be released from their employment 1 or 2 days per week to study career related courses.

The Vice President for Academic Affairs at the University of the Philipines reported that some specific academic units have programs requiring career related experience--these were in Public Administration, Mathematics and the Physical Sciences.

From the Republic of Korea, Soo Wong Joo, Director of the Science Education Bureau reports active co-op programs for students in Agriculture, Technical Courses, Marine and Fisheries Colleges.

In Latin America, Brazil reported 574 students enrolled in co-op programs. In addition they have a special program "Projecto Rondon" with provides thousands of university seniors an opportunity to work in the undeveloped parts of the country.

In Venezuela, Co-op Sandwich Programs were being introduced in agriculture, mechanics, business education and electricity.

In Cuba, the Castro Government planned to include practical training in its educational programs so as to bring about a "smaller investment in laboratories, better utilization of industrial installations, more solid theoretical and practical training, higher technical level in industrial centers, and the training of worker-technician-engineer teams as the base of the skilled labor force needed in Cuban industry. Co-operative education is now the general rule in the three Cuban universities: Santa Clara, Santiago de Cuba, and La Havana. The alternation between work and study is a daily one and continues throughout the student's entire university program.

Finally, in Canada our good neighbors to the north have a number of very successful co-op programs and have developed some very unique methods of operating their programs. They now have a Canadian Association for Cooperative Education to promote the growth and development of co-op and you will be hearing more about this from Gordon Lancaster.

In conclusion, I would like to make some general observations about the growth of Cooperative Education outside the United States and Canada. In the United States, approximately 70% of the colleges and universities offering Cooperative Education and similar programs are publicly supported and an additional 10.8% are supported by a combination of public and private funds.

At the outset, many programs outside of the United States were industry-based with the employer carrying out a recruitment campaign and selecting students for development in his organization under the guidance of a company official. However, during the past five years or so, the balance of the new intake of students has shifted so that approximately 59% of the programs outside of the United States are now college based.

In response to the question "what is the prime objective of your program" the following results were obtained:

Objective	US & Canada	Outside US & Canada
Career Development	89.0%	81.0%
Personal & Cultural Growth	4.5%	6.9%
Financial Assistance	1.1%	2.0%
More Effective Utilization of Institutional Resources	2.9%	2.3%
Improved Community Relations	2.3%	2.0%
Other	3.7%	

There is no uniformity in the length or the frequency of the individual work blocks; a spread of 2 weeks up to 1 year in length, and 1 to 7 in number was reported. However, in almost all of the cooperative education programs around the world, some academic study is required prior to the student's initial work period.

Great variation exists in the scheduling of practice periods between institutions and even to some degree within institutions.

45.6% of the institutions outside of the United States report that the basic scheduling plan for their programs is the alternation of periods of full-time school with periods of full-time work.

The percentage of programs in which all students are paid a salary during their practice periods is similar all over the world with 78.4 of those outside of the United States working on paid positions and approximately 76% in the United States. Only 8% of the students elsewhere in the world are working totally on a voluntary basis.

Data supplied on the types of employers outside of the United States indicates that of the 6,510 employers reported, 75.1% are in the business and industry segment of the economy; 18.9% are government employers.

Only 11% of the programs in the United States require students to participate when cooperative education is offered in their disciplines--that is, they are optional programs. Elsewhere in the world there is almost an inverse ratio of mandatory programs to optional programs with 70.5% reported as being mandatory.

The following is a comparative distribution of the students in various disciplines outside the U.S. and Canada:

Discipline	% of Co-op Students In Each Discipline
Engineering	43.0%
Education	15.3%
Physical Science & Mathematics	10.7%
Business	8.4%
Technologies	5.3%
Architecture	3.7%
Social Science	3.6%
Health Professions	2.6%
Vocational Arts	2.2%
Humanities & Fine Arts	1.8%
Others and no response	3.4%

Of those institutions reporting which do award credit, 30.4% awarded credit for Cooperative Education; however, in every instance, it was on the basis of add-on credit. In other words, it did not replace other credits required for graduation.

When considering the rate of growth for Cooperative Education in both the United States and abroad, I believe you will agree that it may well be called the greatest development in higher education of the 20th Century.

Current Status And Future Trends Of Cooperative Education Exchange In The United States

Donald C. Hunt

The current status of Cooperative Education exchange in the United States is very completely reviewed by Drs. Donald R. Allen and Sylvia J. Brown in a copyrighted article in the forthcoming issue of the Journal of Cooperative Education entitled "Survey of International Cooperative Programs". I was privileged to a pre-publication reading of the article which was based on data collected in 1976 and 1977, and a summary of their findings seems a most appropriate introduction to our discussion.

Of the 1030 institutions in the United States reported to have a Cooperative Program, 447 responded to their questionnaire (a remarkable return), and 54 of these had current active overseas Cooperative Programs for their students. The number of public and private institutions was the same, and 85% of the programs were at four year institutions. 52% of the institutions sent students overseas on an ad hoc basis, and the remaining indicated they operated through a structured exchange program such as International Association of Students in Economics, (AIESEC), or IAESTE, or directly with another institution, or a combination of all three approaches.

One-third of the institutions reported the number of students sent overseas was either one or two, another third reported three to ten students, and the remaining third reported more than ten students placed. 96% indicated that work placement abroad was not required, and two-thirds of the institutions did not even suggest to students that overseas placement was available. Students are being placed all over the world, but the most popular choices were Great Britain, Germany and France.

The overseas period of work was two to six months for most students and the usual earnings were either room and board, less than fifty dollars a week, or between fifty and on-hundred dollars per week. The most frequent participants were majors in Engineering or Language. Over half of all the experiences were directly related to the student's major, and 39% at least somewhat related. Half of the institutes gave academic credit for Cooperative Training overseas, and awarding the credit was sometimes the responsibility of the student's academic department and in others the Cooperative Education Department. One-third of the Directors said they received foreign students for placement in exchange for placing their students abroad.

Of the 447 institutions responding, 57% felt that a national clearing house for the international exchange of Cooperative students was desirable. 38% of the 447 indicated that no students would currently be interested in a placement period overseas. Of those indicating an interest, four year institutions indicated a higher estimated number of

students than did two year colleges. 30% indicated they would be willing to place a number of foreign students in their United States industrial areas in return for placing their United States students abroad, and another 8% indicated that they were unsure, but the local placement of foreign students might be a possibility. Interest was greatest for the placement of Engineering and Business majors. Interestingly, this total of 38% indicating a willingness to cooperate in an exchange of students was equal to the 38% where there was no student interest, and the two groups represent three-fourths of the total of 447 respondents.

Dr. Allen drew a final conclusion to his investigation that "participation in overseas placement programs is operating on a smaller scale than it might otherwise be if a national clearinghouse for international Cooperative Education was developed, or a structured national foreign exchange program was set up."

In order to address myself to the areas of student interest, potential opportunities in the United States, potential fields of exchange, potential non-technical areas, and the impact on students, I questioned students in several institutions in southeast Michigan with extensive Cooperation Education Programs, including two and four year schools, and executives at five multi-national corporations, both at the corporate level and in the operating areas.

I found a very uniform attitude among all students that indicated an interest in overseas assignments from a cultural or enrichment viewpoint, but absolutely no interest from a professional development viewpoint. Engineering and Business students were more of this attitude than were students in the Humanities, and I am sure that the Humanities students had little or no perspective as to what is meant by professional development. In general, all students were naturally interested in a chance to travel overseas, but they were equally reluctant to spend their own money, especially when they were already receiving financial aid of some kind to finance their education. All Cooperative students to whom I talked were earning substantial salaries on their Cooperative assignments ($700 to $1100 per month). Many of these felt that it was not appropriate that they should give up this financial arrangement, travel overseas, and then be a financial burden on their parents or on some system of their school's financial aid. (I think this is a commendable attitude on the part of students.) In the minds of students, the financial burden of working overseas has become a major problem with overseas inflation coupled with the devaluation of the U. S. dollar, and I find it hard to argue against this opinion.

Of those students commenting on "professional development", the engineers are the most negative because they felt that outside of possibilities in Japan, Germany, and England, there was little they could learn at their level of training regarding engineering. In general, they thought they would much rather postpone any overseas assignments until two or three years after graduation. Students with substantial financial resources and rather undefined career objectives were the most willing to participate in overseas work.

Although I was surprised that Dr. Allen found 38% of the institutions had no student interest in overseas assignments, my discussions with student counselors indicated an overall somewhat reluctant attitude on overseas Cooperative assignments, especially when compared to overseas academic programs.

My discussions with corporate executives indicated widely different attitudes toward the exchange of Cooperative Education students for their respective corporations, and on the other hand, they were rather uniform in expressing strong limitations at best. One corporate director of design who had had assignments in England, Germany, Spain, Australia, and Tokyo felt that in the design business there was practically no room for the exchange of students. His corporation has Design Offices in many countries into which they bring nationals for training and development. If, after a year or two, these nationals show promise, they bring them to this country for further development on a corporate assignment. He could recall only one exception to this general practice, and this had strong political overtones. Another corporation indicated that they would

be very reluctant to release one of their United States Cooperative students to go to another organization in another country for a three to six month period out of a total of twelve months of industrial training available in the usual Cooperative Program. In addition, this executive felt that anything that might be done was really a philanthropy and should be handled by the "corporate fund" designed for such purposes.

Another corporation felt it would be beneficial for their own Cooperative students from an enrichment standpoint and from a product usage standpoint. They felt that students could gain much from finding out how products like those produced by the company were used overseas, but they did not feel they could benefit by having foreign students work in the United States operations.

I talked to the International Personnel Director of a large manufacturing organization with extensive holdings in South America. He felt the corporation could benefit by having potential employees identified among the students in South American institutions, and have them here for one or two Cooperative assignments. In this way, their performance under corporate conditions could be evaluated and interest in the students as permanent employees could be determined before graduation without any prior commitment. However, he indicated that selection of candidates would have to be done by South American corporate personnel offices. Interestingly, this executive was interested in students with majors in sales and marketing, data processing, accounting and finance, and manufacturing, and he had little interest in engineering because all of the real engineering is actually done in the United States.

I talked with one firm which this past spring dissolved its division called "overseas operations" because of the general attitude against the influence of United States citizens working and directing the corporate operations in foreign countries. All of the corporate executives expressed concern over U. S. citizens working abroad whether students or professionals, and they are taking steps to further reduce the numbers. One major firm has reduced its numbers of overseas United States citizens from several thousand to just 250. Another major corporation felt that since they operated their own Technical Institute, practically all their needs for training foreign nationals could be handled by programs at their Institute, including degrees in engineering.

In conclusion, I found only limited opportunities, in specialized areas, where a true exchange program for Cooperative Education students could be developed. Beyond these limited areas the executives felt that special circumstances involving exceptional students, where the institution and the student would be served in an extraordinary manner, could be handled on an individual basis. To me, this is the same as saying that this is a kind of philanthropy, a favor to the Director of the Cooperative Program, a special situation involving nepotism, or a politically advantageous proposition. In addition, I found no interest in the purely non-technical areas such as the Humanities and Social Science.

Current Status & Possible Future Trends For International Co-op Exchanges - Canada

G. M. Lancaster

History:

Co-op education in Canada started at the University of Waterloo, Ontario, in 1957 and at that time was limited to the engineering program. Engineering at Waterloo continued as the only Canadian co-op program until 1963 when some science programs at the same University were added to the co-op offerings. Waterloo continues to be the largest single co-op institution in Canada and, I think, the second largest in North America.

In 1966, the University of Sherbrooke, Quebec, began to offer its engineering program on co-op and since 1968 we have seen a steady increase in the number of co-op programs until in 1978, 16 post-secondary institutions across the country offer co-op in one or more disciplines. Simultaneously co-op growth has continued in existing institutions.

This growth in Canadian co-op is displayed graphically on the screen, with figures up to 1977.

The Problem Of Definition:

"Co-op Education" is an expression which is used in Canada to describe a wide variety of educational practices. It may mean 1 week per year of unpaid observation in an office environment for high school students; it may mean 1/2 day

per week of paid or unpaid work for college students in Retail Marketing; it may be used to describe a paid program-related summer job or it may be defined with some precision.

In an attempt to standardize language usage and, we hope, to minimize confusion & misunderstandings the Canadian Association for Co-operative Education (CAFCE) adopted the following definition at it 1977 Annual General Meeting.

"Co-operative Education is defined as a process of education which formally integrates the student's academic study with work experience in co-operating employer organizations. The usual plan is for the student to alternate periods of experience in appropriate fields of business, industry, government, social services and the professions. Co-op programs will be in accordance with the following criteria:

A. Each work situation is developed and/or approved by the institution as a suitable learning situation.

B. The student is engaged in productive work rather than merely observing.

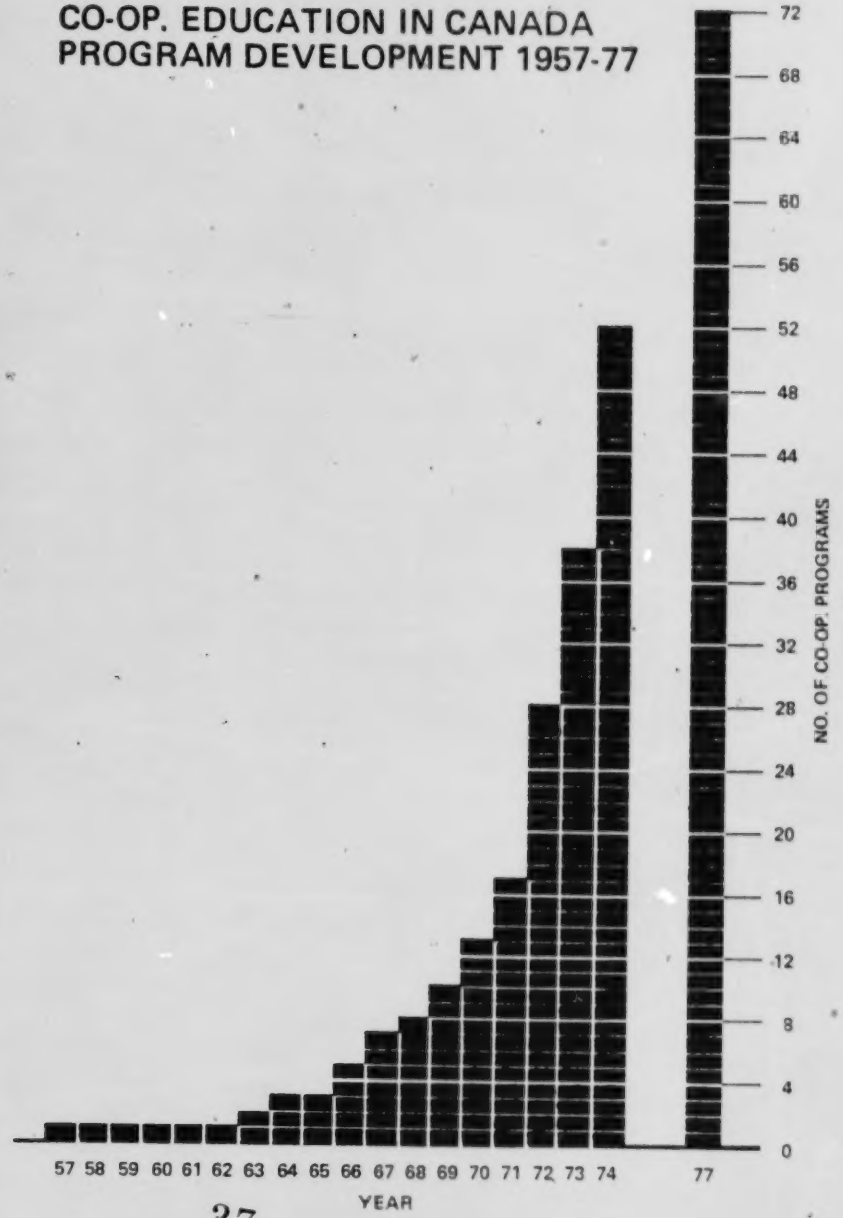
C. The student receives remuneration for work preformed.

D. The student's progress on the job is monitored by the institution.

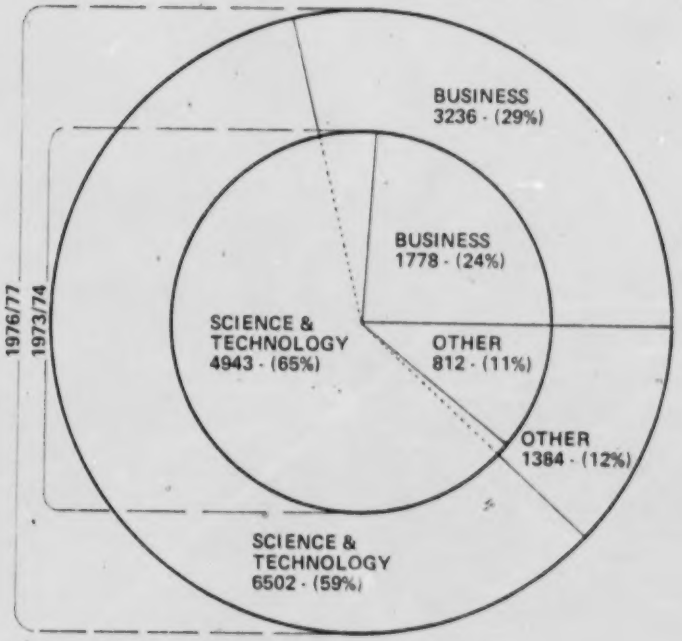
E. The student's performance on the job is supervised and evaluated by both the employer and the institution.

F. The total co-operative work experience is normally 50% of the time spent in academic study, and in no circumstance will this figure be less than 30%.

CO-OP. EDUCATION IN CANADA
PROGRAM DEVELOPMENT 1957-77



BREAKDOWN BY DISCIPLINE
ACADEMIC YEARS - 1973/74, 1976/77
No. OF CO-OP PLACEMENTS



SCIENCE & TECHNOLOGY	SCIENTISTS, ENGINEERS, TECHNOLOGISTS, TECHNICIANS.
BUSINESS	BUSINESS ADMIN, MATHEMATICS, COMPUTER SCIENCE, MARKETING, ACCOUNTING, ECONOMICS, INFO SYSTEMS
OTHER	ARTS, ARCHITECTURE, GEOGRAPHY, KINESIOLOGY, RECREATION, PUBLIC ADMIN, EDUCATION, LEGAL, FASHION, RESORT AND HOTEL MANAGE., ADVERTISING

In adopting this definition, I should emphasize that no qualitative judgements are intended; no claim is made that such programs are superior to other forms of experiential education. But the members of C.A.F.C.E. agree that such definition is useful for their purposes and we are working with provincial (state) and federal government departments to adopt this as a standard definition for co-operative education at Canadian colleges and universities.

Co-op Colleges And Universities:

The following universities offer co-op degree programs in Canada:

Memorial University,	Newfoundland
University of Regina,	Saskatchewan
University of Waterloo,	Ontario
University of Toronto,	Ontario
University of Sherbrooke,	Quebec
Lethbridge University,	Alberta
University of Victoria,	British Columbia
Wilfred Laurier University,	Ontario

Colleges offering co-op diploma programs are:

Dawson College,	Montreal, Que.
Fanshawe College,	London, Ont.
Georgian College,	Barrie, Ont.
Mohawk College,	Hamilton, Ont.
Northern Alberta, Institute of Technology	Edmonton, Alta.
Red River Community College,	Winnipeg, Man.
Seneca College,	Toronto, Ont.

Physical Canada:

Although Canada occupies more area than any country in the world other than China, virtually all of the population is concentrated along the strip that is the U.S. border. And much of the populated Canada is physically like this part of Wisconsin.

Of the total population of 23 million people (1976 Census), only a few thousand live more than 200 miles from the U.S. border. In addition, 75.5% of the population (or 17 million people) live in urban communities. Distances between cities are immense.

Two provinces, Ontario and Quebec, contain about 65% of the total population. One paradox of co-op development in our country is that none of the 5 major co-op schools is located in a major city. Waterloo and Mohawk are 60 miles from Toronto's 2.2 million population and Fanshawe is 120 miles away. Sherbrooke is 60 miles from Montreal's 2.5 million people and Memorial located in the provincial capital, St. John's, Newfoundland, is located in a city of 100,00 people.

Very obvious developments that should occur on the Canadian scene include increased co-op activities in Toronto and Montreal.

Education Funding:

Under the terms of the British North America (BNA) Act, education at all levels is a provincial responsibility and is jealously guarded.

Through tax-sharing arrangements, the Federal Government does contribute operating funds and student financial aid to post-secondary institutions but the "Feds" have no legislative authority in education and all policy matters are decided by the provinces.

Funding For Co-op:

One of the inhibiting factors in co-op development in Canada has been the steadfast refusal of provincial governments to recognize that co-op does involve administrative costs over and above more traditional modes of education. Consequently,

co-op development has been limited to those institutions where senior administrators have been prepared to divert educational funding from other projects into co-op.

But there is some light at the end of the tunnel. In October, 1976, the Federal Minister of Manpower and Immigration announced in Ottawa, his intention of introducing "seed" money for interested provinces to stimulate co-op development as a means of "bridging the gap" between education and work. Since then, modest sums have been distributed and this year $1/2 million has been allocated.

Reactions to this announcement in the co-op community have been mixed. On the one hand are those instituions who feel that with money, comes controls and that the availability of incentive funds will cause instituions to look to co-op, not as a better strategy of learning, but simply as a way to get additional funds. On the other hand are those institutions that welcome financial support from whatever source to relieve the financial pressures that they live with daily.

One interesting comment on the "free-market" development of co-op that has occurred in Canada, came from George Miller of the state of Florida writing in a U.S. co-op newsletter and comparing the Canadian and American scenes:

> From my standpoint it is refreshing to note that in Canada institutions are moving on co-op without encouragement of Governmental Funding and in turn the incentive is coming from the top administrators rather than from the lower level as in the U.S. in most cases. In turn, the talk is 'what is best to produce the best student possible?', not 'let them earn while they learn', or 'getting a running start on job offers', or how can co-op build up a Full-Time Equivalent formula that can best be used by an institution (to generate income)?'.

With the recent introduction of Federal funding though, Professor Miller's observations may not be pertinent for too much longer!

Canadian Organizations:

The Canadian Assocation for Co-operative Education started in 1974 and is an organization of post-secondary educators in co-op. We currently have a membership of close to 100.

Dr. Lloyd Barber, President of the University of Regina, hosted an "Opportunities International" conference in August, 1976. Out of this conference grew a Canadian organization of the same name -- "Opportunities International" -- devoted to promoting interchanges of students for technical experience. In spite of its great promise, this organization is dormant for lack of funding. The Canadian Bureau of International Education attempted to get funding for Opportunities International and failed. Many of us are optimistic about a future resuscitation.

An organization like Opportunities International could usefully be involved with and assist in functions such as:

1. The Development of Exchange Mechanisms-

   - Liaise with government departments and other agencies.
   - Establish procedures for issuing work visas and tax ememptions (if applicable).
   - Negotiate travel arrangements with airlines, railways, buses, etc.
   - Generally handle the logistics.

2. The Establishment Of A 'Clearing House' Function

   For Jobs and Information -

   - Receive and disseminate information on international opportunities and co-operating agencies.
   - Maintain register of available jobs and students.
   - Publish regular newsletter.
   - Organize seminars and conferences.
   - Publicize O.I. in Canada to governments, business and industry, post-secondary institutions and to the general population.

3. The Placement Process which will utilize either a matching of applicants to opportunies or a competitive process.

4. The Evaluation Process which will involve the continuous evaluation of jobs, student performance, employers and the learning process.

5. The Supervision Of Placement which will include generating new job opportunities, improving existing jobs and learning opportunities nd direct institution-employer liaison.

A number of government agencies (e.g. Employment & Immigration Commission, Air Canada) have emphasized that some "umbrella" organization, able to speak with authority on behalf of all institutions, is absolutely vital from their point of view.

Such an organization could reasonably undertake functions #1 and #2 listed above. Pending the eventual resuscitation of Opportunities International, the national executive of C.A.F.C.E. has undertaken some developmental work in this regard and has, for instance, an assurance from the Federal Government that work visas will be made available for legitimate reciprocal exchange schemes. Reciprocity though, is vital.

Functions #4 & #5 mentioned above, as integral components of the learning process will always remain the responsibilities of the co-op schools. Nevertheless organizations like O.I. and C.A.F.C.E. will undoubtedly be able to help in and perhaps

stimulate the development of bilateral institutional arrangements.

Function #3, the placement process, will likely be a joint endeavour between individual schools and co-ordinating agencies.

There are those who argue that existing organizations like IAESTE (International Association for the Exchange of Students for Technical Experience) and AIESEC (Association Internationale des Etudiants en Sciences Economiques et Commerciales) should be encouraged to undertake the kind of co-ordinating role under discussion. I heartily agree -- but with two reservations:

1. There are many co-op disciplines not covered by the activities of IAESTE and AIESEC (e.g. Public Administration, Hotel Management, Marketing, English, etc.) Some 'umbrella' co-ordinating agency would be necessary for such programs.

2. IAESTE is heavily university oriented; AIESEC is exclusively university oriented. What about community college exchanges? My own college is very active and will continue to explore how more exchanges can be stimulated. IAESTE and AIESEC do not meet college needs at this time.

Bilateral Institutional Arrangements:

For Canadian co-op colleges and universities, the second most successful mechanism for stimulating co-op student exchanges (the most successful being IAESTE Canada) is the development of bilateral institutional arrangements. Known ones include:

Sherbrooke with Grenoble, France
Waterloo with Brunel, England
Fanshawe with Sheffield Polytech, England
Memorial with Trent, England
Toronto with Bath, England.

The numbers of students involved in such exchanges are not large yet. But relationships are being developed and there is no reason why such relationships should not begin between Canada and the U.S. I hope that this may be one of the outcomes of this two-day meeting.

The Involvement Of Multi National Corporations:

One factor which inhibits the development of international co-op work exchanges is the continuing shortage of suitable work places. An important incentive for employers to become involved with co-op education programs is the potential offered for eventual full-time recruitment of co-op graduates. However, for international exchange students, this incentive does not exist and consequently many otherwise enthusiastic co-op employers are unwilling to provide work places for exchange co-op students. In this regard, the multi-nationals may have opportunities to participate when their smaller domestic competitors are unwilling. But this needs a multi-nationals approach to training and my limited experience has been that most so-called multi-nationals operate in effect, as autonomous individual companies from one country to another. I can think of numerous instances where U.S. parent companies are giants in the U.S. co-op scene and their Canadian counterparts just will not participate. In other cases, the Canadian branch does co-op and the U.S. parent does not.

Can the multi-nationals help expedite international co-op exchanges? If so, how? What can we, as educators do, to help them?

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Current Status And Possible Future Trends For International Sandwich Mode Higher Education Interchange, A United Kingdom View

Gerald Smith

Introduction

Higher education or advanced further education in Britain is concentrated in two sectors. The university sector consisting of 43 autonomous institutions funded by central government directly on a quinquennial basis, and the so-called public sector consisting of Polytechnics, Institutions of Higher Education and Colleges of Technology, again funded by central government but indirectly on an annual basis through local or regional government authorities. The 30 Polytechnics, all designated since 1966, between them are responsible for the very large majority of provision of advanced further education in the public sector. In Scotland academic institutions of a profile similar to that of a Polytechnic make a significant contribution to higher education north of the border. With the exception of the Independant University of Buckingham, whose degrees are not widely recognised, there is no provision of privately funded higher education in Britain.

Universities are empowered by Royal Charter to confer degrees. Polytechnics are not. The Council for National Academic Awards (C.N.A.A.) however is empowered by Royal Charter

to confer degrees on students who have successfully completed approved programmes of study outside the Universities. The C.N.A.A. is required under its charter to ensure that the academic standard of the programmes of study which it approves in Polytechnics and other advanced colleges is the same as that obtaining in British Universities. The degree awards of the C.N.A.A. are similar to those of the Universities i.e. B.Sc (Bachelor of Science) B.A. (Bachelor of Arts) M.Sc. M.A. M. Phil. B.Ed (Bachelor of Education) and doctorates.

Apart from the processes of validation and approval, usually for a five year period in the first instance, the CNAA system allows maximum autonomy to the academic institution to admit students, to interpret the proposed curricula and scheme format, to teach, examine and assess students' performance and eventually to recommend to the C.N.A.A. successful students for the award of degrees. The actual degree awarding ceremony is a matter for the individual institution.

Developments Since 1950

The Polytechnics have their traditions firmly rooted in the provision of vocational education which began some 80 years ago, mainly in the part time mode for students already in full time employment. Since the 1950's the development of the sandwich mode has been rapid and continuous. Government intervention in 1963 created nine new technological universities from some of the most advanced and vigorous institutions in the public sector, transferring them to the university sector at a stroke. The then National Council for Technological Awards was replaced by the C.N.A.A. and soon afterwards

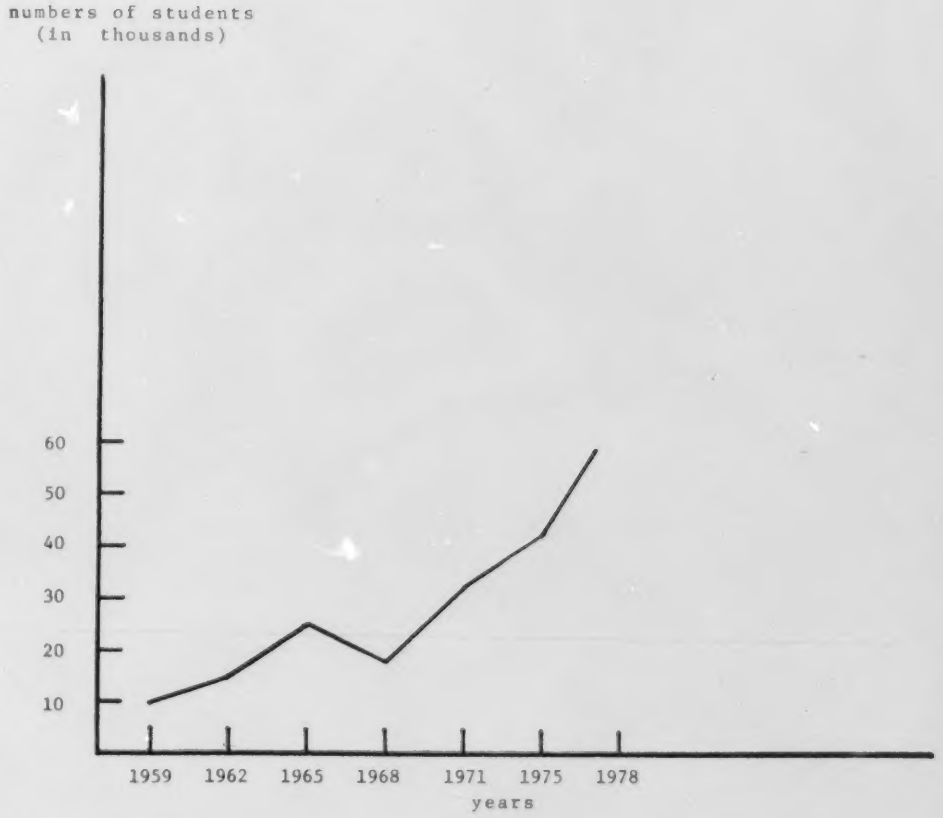
the concepts of the Polytechnics as comprehensive institutions of tertiary or higher education emerged as partners with the Universities in a binary system of higher education.

Apart from the different basis of funding and academic regulation the most significant difference between the Universities and the Polytechnics lies in the comprehensive nature of the range of academic levels of work in the Polytechnics. Not only are there schemes of study leading to nationally recognised degree awards under the C.N.A.A. but also a wide variety of advanced sub-degree study opportunities leading to Diplomas and Certificates, also nationally accredited, and specialist professional courses. The modes of study vary from scheme to scheme but include the whole range of formats open to scheme designers from full-time to part-time evenings study patterns and intensive short specialist or refresher courses. The Polytechnics and the Technological Universities created from 1966 and 1963 respectively are the chief centers of active support of the sandwich mode of higher education. Figure 1 shows the development of sandwich courses since 1958.

The Sandwich Mode Principle In Britain

The purpose of the scheme of studies is usually strongly vocational i.e. career oriented. There may also be a defined professional purpose in that the requirements of a certain professional body that intending members should satisfy are deliberately covered wholly or in part by the total programme of studies and related professional practice experience.

DEVELOPMENT OF SANDWICH COURSE ENROLLMENTS

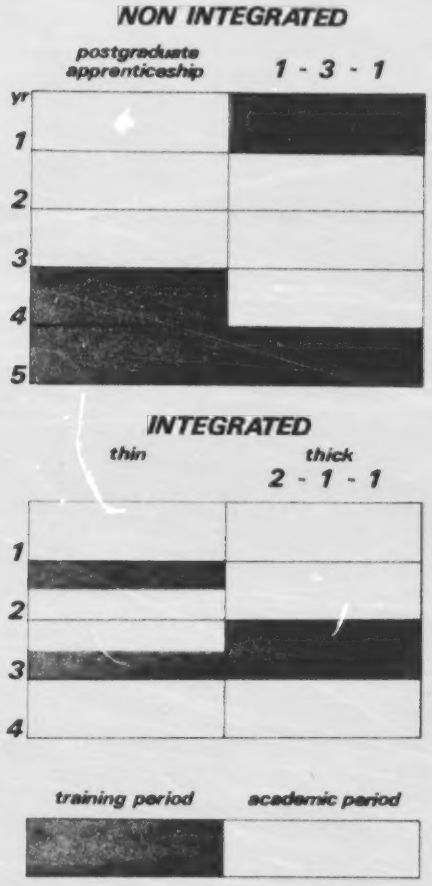


The overall academic and vocational objectives are met by a carefully designed pattern of alternating academic studies and professional practice experience in the field, appropriate to expected vocational or professional objectives. There are many patterns possible but it is necessary to distinguish between so-called integrated and non-integrated types (See Figure 2). Generally the minimum total field experience within a four years first degree programme will be not less than one year. Courses of the non-integrated pattern are not usually considered to be true sandwich courses.

There is a close liaison between the Polytechnic academic staff and industry, business, or commerce, to effect the successful placement of students on individually designed programmes of experience and practice during the "industrial periods". Academic staff who teach on the course are responsible for placing the students and for monitoring the progress of students through the programme and assessing the benefit derived by the student from the opportunities offered. Academic staff visit each student at least once in each three month period in industry and reports are made by them and by the company personnel and training fuction. Unless a student obtains satisfactory reports on his periods in industry the award of the degree will be deferred until duration and quality requirements have been met to the satisfaction of a panel of academics and industrialists advising the Board of Examiners.

Similar critieria apply to sub-degree advanced programmes of the Higher National Diploma type. The academic criteria for admission to these courses is less stringent than is the case

COURSE PATTERNS



for degree studies and the courses are usually a year shorter in duration. The sandwich principle still applies, however, but the progressively demanding nature of the industrial programmes arranged for undergraduates is replaced by a requirement of not less than 48 weeks relevant "experience".

Factors For Change In Higher Education In Britain

In a parliamentary answer in November 1977, Mrs. Shirley Williams, the Secretary of State for Education, set out the following planning assumptions:

	1976/77	1981/82	Change	%
Universities (England, Scotland, Wales)	272,000	310,000	+38,000	+14
Polytechnics (England & Wales)	90,000			
other colleges	40,000	181,000	+51,000	+39
Teacher Education	86,000	38,000	-48,000	-56
Scotland including Teacher Education	27,500	31,000	+ 3,500	+13
TOTALS	515,500	560,000	+54,000	+10.5

Over recent years national Polytechnic enrollments have been growing at 7-8% per annum partly for demographic reasons, partly because of student choice. A typical cross section of the student population in a Polytechnic might show 25% from homes near the Polytechnic, 60% from distant homes (i.e. more than 40 miles) and 15% from abroad. It should be remembered that students are free to choose the Polytechnic or University which they wish to attend. The majority choose to study away from home.

Higher Education Into The 1990's

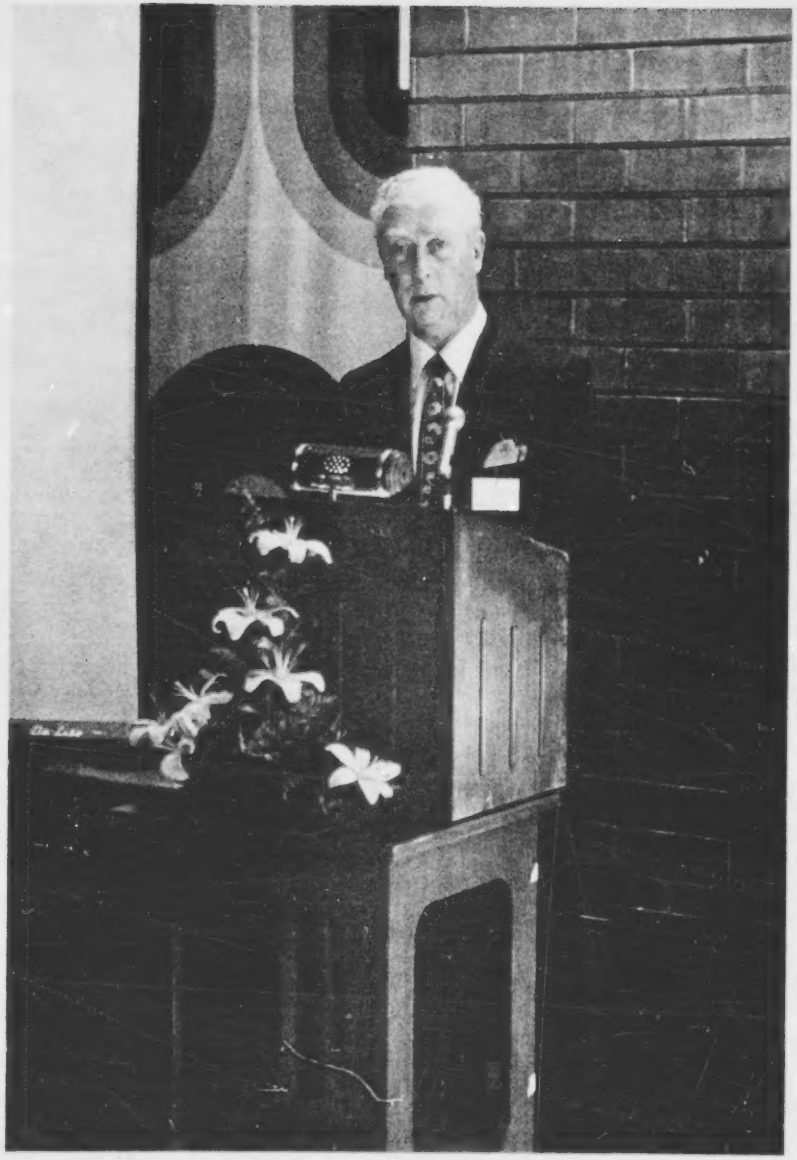
Past growth in full time and sandwich higher education provision and the planning figures adopted for years ahead have

reflected a pattern in which, traditionally, young home entrants have predominated; and it is in providing for this group in particular that successive Governments in the U.K. have adhered to the principle that higher education courses should be available for all those who are qualified by ability and attainment to pursue them and who wish to do so. The 1981 planning figure of 560,000 represents a downward revision of earlier figures based on assumptions of more rapid growth in demand than has in fact materialised over the intervening years.

The most crucial assumptions concern young home entrants. It is already certain that the 18 years-old age group will begin to decline in size from 1982/83 and will fall much more steeply from 1990/91; the children are already born. But there can be no certainty about the proportion of the age group likely to be suitably qualified for and willing to embark on higher education courses.

During the 1960's participation rapidly increased but over the last seven years it has been steady at about 14% of the 18 year-old age group. It is worth noting that in 1972 the participation rate forecast for 1981 would be 22% and still rising strongly. This is now seen to be a serious over-estimate.

The central projection suggests an increase from the present 520,000 through the 1981 figure of 560,000 and up to 600,00 in 1984/85. Numbers would then stabilise at that level for 6 years or so until 1990 when they would fall back to about 560,000 in 1992 and to about 530,000 in 1994 with further contraction after that.



In analysing the contingent factors which might more closely quantify the growth or decay pattern one must include Government intervention, social changes, unexpected changes in birth rate and the increased demand for continued education accompanied by changes in patterns of employment or of unemployment.

Factors For Growth Of Sandwich Courses

Dramatic changes in preferred fields of studies have taken place over the past four years. The upswing in student numbers reading the Social Sciences has not only halted but the numbers of students entering such programes have declined by 50% and are still falling. Secondary school pupils now rate Social Sciences around tenth in their order of preference in higher education. Astonishingly Engineering, from being about four-teenth in order of preference is now first and admissions to engineering programmes are increasing at the rate of between 10 and 15% annually. Inevitably the academic quality of those admitted is also noticeably better. There is no firm evidence that the proportion of those students who choose to study in the sandwich mode is increasing but the overall number certainly is. Without doubt the employment situation in the U.K. has had an effect. More students are seeing vocational higher education as an assurance of better employment and career prospects. It would also appear that some of those school leavers who in the past would have proceeded to higher education in Social Studies are now choosing not to enter higher education at all. This not to say that at 18 years of age these young people are unemployable; the

banks, insurance, business and commerical houses, service industries, and in the U.K. local and national government offices and agencies appear to have instiable appetities for the non-technical products of our secondary school system.

The drastic cut back in Teacher Education and training has closed this career to many 18 year olds, especially girls, but it will be some years yet before the appalling waste of talent in 50% of a young population is stopped by schools, careers advisers, the media, prejudiced public opinion and parents changing their attitudes on so-called girls' studies and careers for women.

In the fields of technology and science direct Government internvention supports the sandwich mode of higher education through the Training Boards. Set up by Act of Parliament in 1963 to improve the standards of training in many fields of manufacture the Engineering Industry Training Board may be instanced. This Board makes a grant of £50 per week for each sandwich mode degree student which a company engages on an approved course and training scheme for up to 52 weeks i.e. covering the minimum requirement in sandwich mode higher education.

The advantages of the sandwich mode of higher education have been recognised for fields of study outside technology and science. Business studies, industrial design, architecture and building, social work, linguistics, hotel and catering management, textile and fashion are seen now as fruitful fields for the application of the sandwich principle. Many such programmes exist and more are being designed, particularly in the Polytechnics.

Factors For Stagnation In Sandwich Courses

Predictions in 1976 that the number of students on sandwich courses could reach over 70,000 by 1981 produced quick reactions from employers' organizations, which although heavily committed to the advantages of the sandwich mode, doubted the capacity of industry to cope with a 30% increase in student numbers.

Recovery from the economic depression of three years standing is slow. In the U.K. the annual rate of improvement in productivity is less than one third of what is quoted as desirable. (5-6%)

Investment in industry business and commerce is not buoyant. This reflects international uncertainty as well as the concerns engendered by the more extreme political views of the party currently in power and the absence of clear policies, other than the simply negative, of the political party hoping to form the next Government.

The unstable international monetary scene which causes apparently random fluctuations in the monthly balance of payments position, even with North Sea oil and gas now firmly on stream, making it difficult to plan long term. This is precisely what higher education requires of industry because of the long lead time between the design and implementation of a degree programme of academic studies and the graduate output becoming effective in the field of application - some six or seven years from the inception of a four year programme.

At the same time industrial demand for graduates, especially from sandwich courses is as high as 5-6 times the available supply in some areas, particularly in manufacturing technology and management or industrial engineering.

The unemployment situation (5-6% nationally), threats of redundancy, or short time working have resulted in labour forces becoming much more sensitive to student trainees. Trade unions are less benign in their attitudes to students, particularly on the shop floor. It is becoming much more difficult to obtain shop floor, hands-on experience for students in manufacturing industry. At the same time, cuts back in education and training budgets by most companies, always driven to mortgage the furture first, have resulted in a very serious withdrawal of facilities to provide engineering students with basic training in manufacturing engineering practice. This is now increasingly regarded as an educational rather than an industrial responsibility. Coming at a time when educational resources are also fully extended because of economic stringency, serious problems have to be solved if the sandwich principle in the field of engineering is to survive unmauled, or even abandoned by those who feel the arguments for and against are finely balanced.

In the absence of reliable research which has yet to produce quantifiable conclusions, the immediate future is going to provide a test of faith to those who believe in the merits of the sandwich principle.

New Factors In The U.K.

Recently H.M. Government has decided to intervene to redress the balance between numbers of students in study fields to a limited but important extent. The critical shortage of sufficient numbers of high calibre graduates entering manufacturing industry with the potential to progress rapidly to managerial responsibility is identified as one of the reasons for Britains' poor performance as an industrial nation. Certain Universities and Polytechnics have therefore been invited to prepare specially demanding broad schemes of degree studies which will combine engineering with business and management studies and possibly a foreign language. The sandwich mode is favored by many of those institutions which have been invited and as a result 5 year schemes, i.e. one year longer than normal, and in the sandwich mode, are appearing.

While not as new as the above there has been for the last seven years a growing internationalism in the thinking of educators, industrialists, and politicians. In the U.K. of course, we are committed to the E.E.C. - firmly by referendum. More courses at advanced levels now include foreign language studies, european studies, international marketing, study tours abroad or periods of placement abroad for comparative progessional practice experience. Attention has been focused on the teaching of modern languages at secondary and even primary school level. The teaching of English as a foreign language is a recognised interest which commands considerable attention.

Opportunities for cheap travel, for careers outside the U.K. in Europe and the Middle East and the growth of reciprocal

activities and movements all contrive to make young people especially, less insular in their thinking, more inquiring, more aware of conditions and opportunities outside the British Isles. Difficulties in the U.K. at the present time can heighten the interest.

Interest in international affairs is not confined to the younger generations. Those who are already set on their careers can find themselves involved through company activities in internafional markets or in the development of international consortia. These young professionals are well aware of the advantages of short periods of updating or comparative experience in their field of practice in other countries. This is likely to be a growth area of interest.

Conclusions

All the signs are for increase in the sandwich mode of higher education which provides excellent opportunities for purposeful travel which will add comparative dimensions of social, cultural and professional experience.

During the formative years personalities can be markedly improved by such experience, national bigotry can be reduced, social consciences may be awakened. Self reliance and self confidence are gained through problem solving in a foreign social and cultural environment.

The inter-relation and inter-dependance between national resources, economics and policies within an international matrix are better appreciated.

These benefits are available to all those who take part in international experience programmes, of whatever age or degree

of professional maturity, and can have long term benefits, not only for the participant, but for those with whom he or she comes into contact.

Through such cumulative experience in successive generations international understanding will be progressively improved and those virtues of tolerance, humility and that old-fashioned virtue of charity developed, especially in young people.

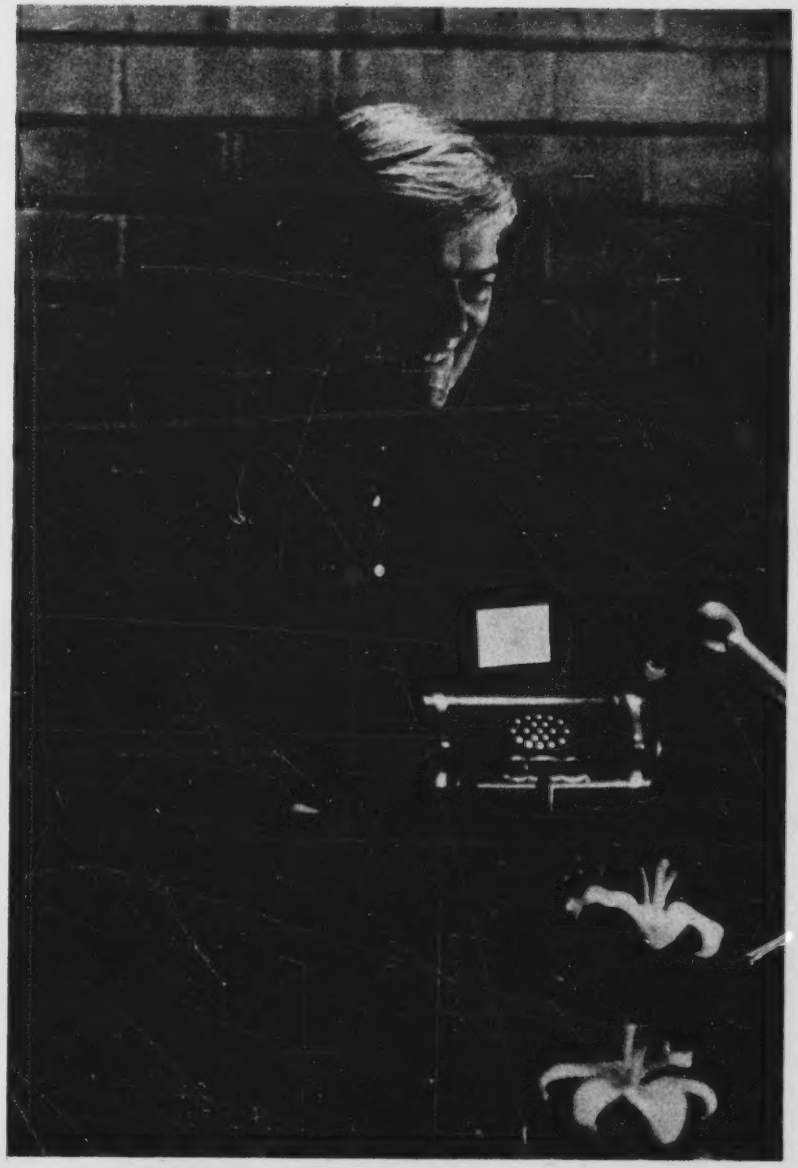
If these spiritual benefits can be added to those of widened professional horizons and personal career development, then international interchange must command our attention and best efforts to ensure continued growth and success.

Future Trends In International Human Resource Development - A Multinational Corporation Perspective

George F. Garvey

I'd like to inject industry's view into our meeting here this afternoon and change the perspective considerably on the things we are talking about here. I guess there's no question in this group about the need for American industry's renewed interest and increased activity in the international scene. With the oil companies drawing American dollars beyond our borders, somebody's got to go out there and get them back. The balance of trade is getting worse all the time. It's reflected daily in the decline of the dollar. And so for the whole nation, it is very important that American industry emphasis the international side of their business. Economically, and in response to our stockholders, and with a flat American market, its an attractive market out there these days. The financing, the availability of money, is no longer the problem that it generally is in the international scene.

With that as an introduction to why business is interested in this area, I'd like to throw out the view that doing business outside the United States is new and foreign to Americans. No matter how many self-proclaimed experts we have in American industry - every time somebody goes overseas and runs a factory in Germany for two years and then comes back, he's an expert on doing business with Japan, knows exactly what the Saudi Arabians are up to, and the rest - when you think of our "babes in the woods" stance



vis a vis international business, we are way behind the rest of the world. I guess the exceptions to that are really the European-held American companies because they know how to do it. Companies like ASEA, GEC, Brown Bovari, Kraftwerk Union and all of the other European companies - add to that Mitsubishi, and Hatashi and the others - if they were compelled to confine their markets to their own borders, they would not be the companies they are today and, in fact, they probably would not even exist. So since their inception, they have been multi-national, international organizations and they have experience that for us in America would take centuries to duplicate. And yet we're out there competing. We're competing not only with our competitors, but we're competing with our own government. You'll notice that I didn't say that doing business internationally is foreign to American business - I said that doing business internationally is foreign to Americans. Our government is equally years behind the rest of the world as we look at the world as a market.

So that's the view I'd like to bring to you today and I guess I say that representing a company that has been multi-national since its inception. We do now about 30% of our better than $6 billion worth of sales annually in products and services that we either export or manufacture in outside-the-United States facilities. So we are there now with almost a third of our business. When George Westinghouse started the Westinghouse Corporation in the 1800's, he built factories overseas - at the turn of the century, we had factories in Russia, Yugoslavia,

England. European operations were part of Westinghouse when we started. So Westinghouse is heavily international and multinational and I say all of this representing a corporation that is in it as deeply as any other American company.

The ways we do business outside the United States are these:

* We sell the products and services which we make in our domestic divisions; while this covers our several thousand product lines, primarily we are in the power systems business (electric power generating equipment, nuclear power equipment, turbine generators and all of the related power plant apparatus and so on); the industrial side of Westinghouse makes steel mills, paper mills transportation systems, and other industrial kinds of equipment.
* We also sell the products and services (and we are not unusual - this is the way the typical company operates - I'm using Westinghouse as an example and not as a commercial!) manufactured by our overseas subsidiaries such as Westinghouse Canada, Marini and Daminelli in Brazil, Galileo in Argentina, Westinghouse Electric, S.A. in Spain, Induselet in Portugal, Thermo King in France and on through 40 or 50 overseas subsidiaries.
* And, a third way we do business outside the United States is selling licenses with some the larger

licensees of Westinghouse being Mitsubishi in Japan, Fiat in Italy, Framatom in France, IEM in Mexico, and so forth.

Those three ways are the ways that most American industrial, multinational corporations do business around the world.

Now, to lead to the Human Resource part of it - how difficult is this task of selling around the world - I maintain that it's "impossible". And here are some of the reasons why. These are some of the complexities that we have to deal with. Under the general heading of "government", specifically our own, are things like export licenses. When you are in the nuclear reactor business, these are awfully important, especially when the Germans and the French and the rest of the world can bid on business in Brazil and we can't. So, export licenses - export regulations, trade restrictions on dealing with countries such as China, Cuba, the Eastern European countries, and all the related problems. Anti-trust - the single trader doctrine and, of course, brand new things such as the Corrupt Practices Act. Then there are tax regulations on foreign business. Added to that are the restrictions put on business by foreign governments such as tariffs, duties, border taxes (there are a hundred different tax structures, I'm sure, around the world - certainly there are a hundred different legal codes), complex labor laws (written and unwritten!) in the many countries around the world, Common Market rules (in the several common market areas), the local content regulations which require that a certain percentage of the product must be manufactured within the country's borders, and so on and so forth. In other words - the ever-growing government intervention in everything we do. Regulations are pervasive. We are spending more time training people on the law and regulatory pressures on our business than we are on our products and their application. Those are some of the complexities.

Beyond the government, I think it gets to be an even more difficult task because to the government complexities, you have to add financial problems. So we worry here about getting the money to finance an order - once we get the order - about export financing. The Ex-Im Bank is a study in itself. The pressures on the Bank which influence whether or not the corporation will get financing for an overseas order are multiple and are influences over which the corporation has no control - Congress, the President, AID, commercial banks, Euro banks, and so on. Financing overseas subsidiaries is again a science in itself. And this all adds to the complexity of international business.

The general complexities of international business - and again, you could add another 10 or 12 items to each of these lists, I'm sure, given the expertise in this room - are a third area. The multiplicity of languages which Gerald mentioned a little while ago. The multiplicity of business ethics. And when we talk about business "ethics" - we are coming from a moral and ethical viewpoint which is different from that of people in other countries. The multiplicty of business buying habits - the way people do business. The multiplicty of governments and the problems of selling to governments.

International traffic and shipments - and this is a whole subject in itself - the documentation for bidding and ordering, insurance, letters of credit, customs, scheduling (miss a shipping date in the United States and the customer will probably get it next week - miss a shipping date in international business and you may wait a year!). There are problems with packing for international shipments, problems of insufficient harbors, insufficient railroads, insufficient trucking capacity and all the other things that we take so much for granted in this country. These all require highly crafted kinds of skills that you have to have if you're going to be in international business.

Then there is the matter of availability of reliable statistics. Trying to study an international market is a real problem. Our Federal Government will give us a set of statistics from one department while another department will give us entirely conflicting statistics. And so we send our own people over and they come back with a third set. You don't know how many people there are, how many babies are born, the number of housing starts, the number of kilowatt hours burned a year, how many factories there are manufacturing automobile tires, etc. These things are all "mysteries" in international business. In our country, everything is computerized and you can press a button and have that information. So you cannot do business based on the kinds of market research that we do here. And, in terms of commerical communications, it's easier to call anywhere in Latin America from Miami than it is from Mexico City. And certainly, we're all used to those 5-page telexes our people send us from around the world. To say nothing of mail service!

Then, coming to the things that we're here talking about today. The training and integrating of non-U.S. employees, the expatriating of our own people, the cultural shock to them and their families. And, compenstating people overseas - whether you sent them there or hired them there - is a very different and difficult task to do in an equitable way.

So those are some of the difficulties that I see - I said I was going to change perspective a bit. As we look at international business and you look at exchanging students to go into international business, the kinds of people that we have in these businesses are generally two different kinds. Westinghouse has some 25-30,000 professionals, mangers and other employees out there in the world someplace outside the United States. We have a base of about 150,000 employees - so about 25-30,000 of them are not here in this country. For the purpose of our discussion here about IAESTE and co-op programs and sandwich programs, I'll have to confine it to about only 2-3,000 of those. This eliminates, of course, factory workers, construction workers, clerical personnel. Also, I've eliminated "contract" workers - the kinds of people that Bechtel hires and we hire too. Service engineers who sign a contract to go someplace to install something, for example. So we are talking about two or three thousand foreign expatriates (we used to call them "third country nationals") and local nationals; and U. S. expatriates. Those are the two general categories of employees that we have - the kinds of people that we have in jobs where I would think the sandwich international trainees and our IAESTE students would ultimately find themselves. Now here

from our view - from the industrial side of the house - here are the two kinds of employees that we have.

The local nationals are traditionally locally employed. The factory was there and they worked for that company when we bought it; or when we built the factory and developed the business in that country, we hired locally. They are relatively inexpensive - and by inexpensive I mean as compared to sending an American there to work. There's a high turnover and we can talk a little bit about that. There's a high turnover primarily, I think, because of something that was mentioned earlier - the problem of integrating people from other countries into your corporation. The local national seldom looks at the company as a place to develop a career, to have long-range goals with that company because there's no experience with it. Rarely, if ever, does a local employee of a multinational company, working in a factory outside the United States, become president of that company. A great deal of training is required. The local or third country national working for you overseas doesn't know your methods, doesn't know your system. They have the advantage, however, of the language and cultural skills which came up earlier - and that's a big advantage.

Then you come to the expatriates and they are a completely different group of people. When you deal with U.S. expatriates, you usually transfer them from other units of the company. You don't go out to the college campus and hire somebody and send them somewhere overseas, because the usual reason for undertaking the cost and difficulties involved are because

you want the person's expertise which took some time to develop. Right now, we need the international business so badly in the next two or three years as American markets remain so flat that we don't have time to go the foreign national route, although this is the long-term plan. This is really the long-term plan - to develop more and more foreign nationals and integrate them into the corporate structures. On the other hand, we are going to have to - for a number of years - continue to expatriate people despite the reductions Don mentioned in the automobile companies of some 90% - we'd like to be able to do that! But we're going to need them because they know the product. They know the markets, they know the technical applications. The expatriates are expensive, however, and the reason they're expensive is a combination of the Tax Reform Act of 1976 which made tax equalization a very expensive matter and the general expatriate "package" such as the cost of living allowances, a hardship allowance to compensate for the lack of community organizations and facilities they would expect at a U.S. location, bodyguards in some places, drivers in others and any number of other things needed, depending on the country.

But perhaps the hardest problem with the expatriate is bringing them back to this country. In past years, we sent a lot of people overseas - some of them very sharp people. The need at that time was to live there - to wait for the local government or customer to call and say "do you people make such and such, if so I want to send you an inquiry, I want you to bid on this." And so the expatriate was really just part of the communications link. He was there also "to meet the boat" when

someone from a domestic division or whatever went overseas to try and sell a product and he was the expert on that country's way of doing business. But he wouldn't know a transformer from a coat hanger! Now days, business just isn't done that way. The way business is done now, the customer - in some of the emerging countries, for example - wants to be told what they need. You need to be able to tell them what kind of transformer, what kind of fuse cutout is needed, what kind of sub-station is needed, what kind of system is needed. You have to be able to hand the customer the advice along with asking for the order. So the kinds of people we sent overseas and developed overseas - previous to the past 2-3 years - often aren't the people we need overseas now. They did the job we sent them overseas to do and many of them did it very well. So right now, it's a real tragedy that as we bring some of those people back who were doing very very well what they were sent overseas to do, we don't have anything for them to do here. They don't know our domestic products, they don't know the markets, and they don't know our business. And, a big part of my concern is to keep that from happening again.

So that's another view of what we are talking about here today. I look at sandwich training in an international sense as an excellent, long-range answer to this problem of replacing most, if not all, American expatriates with local or third country nationals. It is a long-range matter. Bob and I have been working on this for some three years now in terms of developing Westinghouse participation in relation to these long-range goals. We are beginning to build a group of IAESTE "alumni" in other

countries who will perhaps work with us in their own countries after having spent a work period with us here. So we are getting directly into the matter of training people from abroad in our methods and our way of doing business and our products and the application of our products. The same can be done with the co-op experience. I was very interested in what Bill Wilson was saying about co-op possibilities in countries like Korea. I can see more and more of our overseas operations being staffed with local nationals who have been given some initial training with us through these kinds of programs.

Future Trends In International Human Resource Development - A United Nations Perspective

Virginia A. Sauermann

I'm not really sure why Bob asked me out to speak to you because the United Nations is not doing very much in student exchanges for technical or other training, Nor does the UN system have an aggressive program for providing short-term work opportunities for students enrolled in cooperative education or sandwich training programs.

It could do more.....with a bit of prodding....and that is probably why Bob asked me out. After all, IAESTE is an organization which has been granted Consultative NGO Status by the Economic and Social Council (ECOSOC) of the United Nations. The United Nations provides this formal relationship to ECOSOC - and other organs of the UN - for international, non-governmental organizations that have specialized expertise or knowledge which can be applied to the work of the United Nations in its development efforts. In recognition of the international IAESTE's special expertise in the international practical training area, formal relations have also been granted by UNESCO, the United Nations Industrial Development Organization (UNIDO), and the

International Labour Organization (ILO). And, one of the key roles of organizations such as IAESTE is to bring new thinking ... new efforts ... into this work of the United Nations.

So ... what opportunities exist for expanding current efforts of the United Nations system in providing:

1) technical experience for young people?
2) programs of exchange for work experience - i.e., the placing of young professionals and trainees in countries other than their own?
3) short-term work opportunities for students enrolled in cooperative education and sandwich training programs?

In order to answer these questions, we must examine the matter in the context of major UN programs and their priorities.

First, 70-80% of the total United Nations budget is spent in economic and social development. The target? The low-income countries - the developing world. Thus, the UN's concerns in the training and education field are obviously directed towards assisting young persons in the Third World. It is only recently that IAESTE has begun to significantly expand opportunities in its program for trainees from the Third World countries. And, until hearing Prof. Wilson's presentation earlier this afternoon, I did not realize the extent to which variations of cooperative education programs are already to be found in the Third World countries.

Second, in its training programs, the United Nations has given priority to administrative training - that is, training for government posts. Its next concern has been for the professionals needed in Third World countries - doctors,

agriculturalists, technicians, managers. The Specialized Agencies (such as UNIDO, UNESCO, ILO) have engaged, of course, in many efforts to train young people for some of the new jobs that have opened up accompanying economic growth and development - jobs in transport, tourism, manufacturing, and so forth.

Thirdly, it is important to note that most of the UN's training efforts are being undertaken in the low-income countries themselves. Originally, this was done by sending experts to the countries to teach. Now that educational institutions and industrial complexes have been developed, more and more training and education is taking place right at home. The few programs of the United Nations which provided training overseas are slowly being phased out and are being replaced by training either at home or in a neighboring developing country which has the necessary facilities and competency.

There is, of course, the UN Volunteer Programme - but, the volunteer's commitment is for a two-year period. And, although the volunteer does benefit from the international experience, his/her main duty is to teach and to help - not to be a trainee.

The United Nations does have an interne programme. Again, this is geared to helping young people become familiar with international administration. Candidates usually have to be nominated by their government. However, the system has loosened up a bit and special training programs are now being approved on an ad hoc basis. For example, an office in the UN system

can be approached by a young person wishing to undertake a period of on-the-job training and willing to work for the work on a voluntary basis. A special internship can be arranged for such a student. You should note, however, the word "volunteer" as the trainee is not re-imbursed or given a stipend by the UN under such arrangements.

The United Nations is also beginning to look into it own staff training needs. The Fifth Committee of the General Assembly, which deals with budget and staff, has in the past few years repeatedly directed the Secretary-General to employ more young professionals and more women, giving them the necessary training opportunities for advancing themselves within the UN system. Here too, there is an opportunity to explore international exchanges.

So, what can be done?

First, it might be useful to explore with the training and intern staff of the United Nations, opportunities within the UN system for placement of students in cooperative education and sandwich training programs - and for the placement of young professionals from the UN system in corporate and other kinds of offices. Remember that the United Nations works in every field of human endeavor. And, remember, too, that the UN is not just the Headquarters in New York - the Food and Agriculture Organization (FAO) is in Rome, UNESCO in Paris, UNIDO in Vienna, the UN Environment Programme in Nairobi, and a number of agencies such as ILO, World Health Organization (WHO), etc. in Geneva.

Second, two forthcoming conferences of the UN system suggest opportunities to bring to the attention of governments the benefits of practical training, cooperative education, and sandwich training in countries other than their own. In early September, the United Nations Conference on Technical Cooperation Among Developing Countries will focus on ways in which the developing countries can assist one another in transfer of technology among themselves. And, next year, the United Nations Conference on Science and Technology for Developing will look at the current state of science and technology in the development process and at the channels for ensuring that the benefits of science and technology are available to all. Granted that the focus of both conferences is again toward the Third World, but many of you represent multinational corporations with industrial facilities in the developing countries. Opening your facilities in the United States, Europe, or neighboring Third World countries is a real possibility which would be encouraged and supported by governments.

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Administrative Services to Support and Facilitate International Cooperative Education and Sandwich Training Exchanges: A Proposed Role for IAESTE/US

Robert M. Sprinkle

Some years ago, while taking a course on "Problems in Higher Education" at the University of Colorado, I ran across a book entitled The Meaning of a Liberal Education By E. D. Martin. A quote from that book, which I keep on my office bulletin board, strikes me as relevant to the subject of this consultation and as a good starting point for the presentation I will make this evening:[1]

> To my mind, an educated person is not merely one who can do something, whether it is giving a lecture on the poetry of Horace, running a train, trying a lawsuit, or repairing the plumbing. He is also one who knows the significance of what he does, and he is one who cannot and will not do certain things. He has acquired a set of values and they are his own. He knows why he behaves as he does... Whether he conforms or not, he has learned enough about human life on this planet to see his behavior in the light of human experience and the relation of his actions to situations as a whole. Such a person is acquiring a liberal education and it makes little difference whether he is being trained in philosophy or mechanics.

More recently, Asa Knowles, writing in the concluding chapter of his Handbook of Cooperative Education, commented that:[2]

> The major goal of higher education is not merely to prepare a student to effect a smooth transition into an unfamiliar and often alien workaday world. On the contrary, the goal should be to eliminate that transition period before the student completes his college career. The proper use of a relevant academic background in a real-life experience beyond the confines of the campus can be a major step in accomplishing this goal. Cooperative education is the best means of uniting the world of the campus and the world beyond it.

Effecting the smooth transition from school to work of which Knowles speaks has long been a major feature of the philosophical and operational basis for cooperative education programs. The increasingly world-wide problem of youth unemployment and under-employment makes the need for innovation and the development of new directions in higher education more pressing than ever. Innovation in higher education around the world was the subject of a meeting here at Wingspread just three weeks ago which brought together university leaders from more than 30 countries. The 1977 annual conference of the American Association for Higher Education and the resulting book of papers on "Current Issues in Higher Education - 1977" was devoted to the subject of Relating Work and Education. Articles appear in publications such as the Training and Development Journal of the American Society for Training and Development with titles such as "Business and Post-secondary Education Linkages" while the College Entrance Examination Board produced a report in 1975 of a study conducted under contract for the National Institute of Education entitled: "Bridging the Gap: A Study of Education-to-Work Linkages".

The issues of school-to-work transition and youth unemployment are not unique to this country. The May 1978 issue of Netherlands-America Trade reports on 17 pilot projects being launched by the Commission of the European

Community to deal with "...the transition of young people from school to work as part of its latest efforts in education." The magazine also reports that: "There are some 2 million young people under 25 out of work in the nine-nation European Community, a more than 400 percent increase since 1969."[3] And the May 22nd issue of The Chronicle of Higher Education carries a front-page, lead story on recent reports from the International Labour Organization (ILO) and the Organization for Economic Cooperation and Development (OECD) which: "..show that unemployment among youths between the ages of 15 and 24 has become a major international headache - with potentially dangerous long-term consequences." The Chronicle article goes on to say that: "As a result, many countries are re-examining the connection between education and work and are trying to develop new programs to ease the transition from school to jobs."[4]

We see a role which IAESTE can play in helping to facilitate international work assignments for students enrolled in cooperative education and sandwich training programs. We see our capabilities and expertise as being in the administrative aspects of moving people across national boundaries for work experience. However, such activities do not occur in a vacuum and the presentations we have heard this afternoon provide a context within which new programs and services to be offered by IAESTE must operate. By the same token, I would submit that the development - by any organization - of programs offering international work assignments for co-op and sandwich students must be undertaken in a

framework which relates to issues such as world-wide youth unemployment.

Definitions of what constitutes cooperative education or sandwich training are many and varied. The definition used in the December 1977 Directory of Co-operative Education seems to me, however, to be as suitable as any in providing a basic framework for discussion of international work experience for co-op and sandwich students - "Cooperative education may be defined as the integration of classroom theory with practical experience under which students have specific periods of attendance at the college and specific periods of employment."[5] While perhaps a bit simplistic, international co-op placements can then be defined as instances in which "one of the student's specific periods of employment is undertaken in a country other than his/her own."

Let me digress here for a moment to point out that this definition does not deal with three other aspects of what might be called the "internationalization" of cooperative education, namely: (1) foreign students enrolled at U.S. schools as full-time co-op students; (2) the international dimension of the co-op student's educational experience whether or not he/she has an overseas work assignment; and (3) the sharing of information and experience by administrators of co-op/sandwich programs in various countries on the differences/similarities in philosophy and administrative practice among various countries. I will touch on

these points briefly at the end of this paper. I note them here simply to indicate that, as with issues such as the problem of world-wide youth unemployment, the administrative services and programs which IAESTE/US plans in the area of cooperative education exchanges must, and will be, developed in the context of the total question of the "internationalization" of cooperative education.

Our interest in this subject and our efforts to more closely relate IAESTE's work to co-op exchanges extend back a number of years. Indeed, I must apologize to Jim Wohlford for not having taken the "Chronology of Related Events" back far enough - an error which will be corrected before the report of this consultation is printed! In the fall of 1966, Prof. Erskine Crossley who was then at Georgia Tech and who was also then a member of the IAESTE/US National Committee, talked with Jim Wohlford about the possibilities of IAESTE overseas placements qualifying as "properly fulfilling the aims and needs of the Co-op program."[6] Then, on January 9, 1967, Erskine wrote a letter to Jim specifically seeking approval of an IAESTE overseas assignment for a student by the name of Sam Williams as "fulfilling the requirements of a work quarter, and so qualifying Mr. Williams for the 'Co-op degree' designation."[7] Sam Williams did work overseas and that initial experience led to a more detailed set of procedures being developed in discussions between Erskine and Jim as outlined in a letter from

Erskine to the local IAESTE Advisor at Georgia Tech on October 24, 1967. The "Chronology" picks up, then with my November 1968 memo to the National IAESTE Committees in Austria, Germany, Netherlands, Switzerland, and the United Kingdom, and there is no need to repeat that material here this evening.

The lack of progress in our efforts in those early years was due basically to the fact that other National IAESTE Committees were not yet ready to consider the modifications in the historically-defined program which would be needed to work closely with co-op and sandwich programs. They were not yet ready to deal with factors such as students beginning work assignments at times of the year other than June and July, or with work assignments often being longer than the "usual" 8-10 weeks. And, perhaps most importantly, they were not prepared to deal with the role of the student's school in approving the content, in the monitoring, or in the evaluation of the work period. Admittedly, a number of other National IAESTE Committees remain uninterested in co-op/sandwich exchanges. However, as the report of the IAESTE/SCOPE conference suggests, and as Gerald Smith can speak to as well, many other National IAESTE Committees are quite prepared to move ahead in this area. Further, our own contacts are expanding rapidly with national organizations in a number of countries which potentially could assist with developing co-op/sandwich exchanges with their respective countries. For example, the National Training and Development Societies might be extremely effective cooperating agencies in a number of

countries, while we are already working on a regular basis with groups such as the North American Association of Venezuela in Caracas.

IAESTE/US was founded under the auspices of a student committee at the Massachusetts Institute of Technology in 1950 and was based at MIT until 1955 when the Institute of International Education assumed sponsorship. From 1957 until 1963, the program was under the sponsorship of the Engineers' Joint Council. Since 1963, IAESTE/US has operated as an independent, non-profit organization. Originally, of course, our total program effort was devoted to the "traditionally' defined IAESTE student exchange. Beginning about 1972, however, we began to develop programs serving trainees and employers in areas other than the "technical" fields normally associated with IAESTE, for placements of up to 18 months, and including people who have completed their formal academic education. The primary effort in this area to date has been the IAESTE/US Young Professionals Program. The packet of materials sent you in advance of this consultation included a copy of the list of Young Professionals and other long-term trainees in the United States as of April 1, and this will serve to give you an indication of the countries and fields of study currently involved.

As a result of these new directions, work is now underway on a major re-organization of IAESTE/US. A proposal will be considered by the IAESTE/US Board of Directors in September which will revamp the organization's governing body, re-structure the staff, and change the name. The new organization will continue to administer the IAESTE program in the United States,

but as a part of a student exchange division. The re-organization plan will include a specific committment to services in the co-op/sandwich field by way of the proposed establishment of a Center for International Cooperative Education Exchanges (CICEE).

Before dealing with the potential structure, staffing, and funding of CICEE, let me suggest some possible patterns for international co-op exchange and describe the kinds of services CICEE might be expected to develop and offer.

In discussing possible patterns for international co-op exchanges, I want to state in the strongest possible terms one very basic consideration - namely, the absolute necessity for RECIPROCITY. Bluntly put, other countries are NOT interested in having U.S. schools "export" our own youth unemployment to their countries and any international co-op program of significant size will fail unless the number of foreign students placed with U.S. employers is roughly equal to the number of American co-op students placed overseas.

Over time, a number of patterns and variations are likely to emerge. As a starting point, I would suggest three specific possibilities: (1) in-company exchanges by multinational corporations and companies which may not be "multinational" in the usual sense of the word, but which have substantial international business and/or overseas contacts; (2) school-to-school exchanges; and (3) expanded opportunities for placement of co-op students in the regular IAESTE exchange.

In the case of in-company exchanges, the U.S. company with international operations or business might identify some or all

of the co-op students it accepts, for placement in one of its overseas facilities during the student's next-to-last work period. The place being "vacated" by the American student would be filled by a student from the country to which the American student is being sent - either by a co-op/sandwich student selected by the overseas operation or a student selected through IAESTE channels in those cases where the overseas operation is not prepared to select a student for placement in the United States. In such cases, the employer-student linkage remains intact, the work assignment can be structured to fit the normally expected progression in responsibility and increase in quality of work experience, and those students who remain with the co-op employer after graduation do so with at least an initial understanding and awareness of some of the problems and possibilities which the company confronts in doing its business overseas. I would suggest here that the last point may well be the most important. In October of 1974, Secretary of State Kissinger sent a message to the National Council on Philanthropy in which he observed:[8]

> The American business community has interests which are increasingly global. Indeed, I doubt that any other element of our society has a more important stake in a congenial international order.

The in-company exchange of co-op/sandwich students seems to me to be one very good way of working toward the "congenial international order" of which Secretary Kissinger was speaking. Not only would the American student return with a greater awareness of business operations and attitudes in another country, but the foreign student placed in the United States

should gain a much different perspective on the operation of the American free enterprise system.

The second possible pattern which I suggested is the school-to-school exchange with American schools developing working relationships with schools in one or more countries. In such a case, each school would agree to accept a certain number of the other school's students for placement in its own country. A potential advantage in this case derives from the fact that each school should be able to provide appropriate supervision and evaluation of the work period for the over-seas students, thereby limiting to some extent staffing costs. In this case, reciprocity is again maintained, but the employer-student linkage is more likely to be broken. Initially, the number of countries in which counter-part schools can be found to work with American schools may be somewhat limited. However, as Bill Wilson's paper this afternoon suggested, the number may not be as limited as one might suppose, and successful program development is likely to spark interest in countries not now having active co-op/sandwich programs.

We have already had some degree of experience working with both patterns in the normal IAESTE program. Employers such as Eastman Kodak, Westinghouse, and Universal Oil Products have had varying degrees of involvement in the screening and selection of students to be placed, although this has generally related to foreign trainees being placed in the United States. In the case of school-to-school exchanges, IAESTE/US and IAESTE-Netherlands have facilitated

precisely this kind of relationship for the past 14 years between the Webb Institute of Naval Architecture in Glen Cove, New York, and the Department of Naval Architecture at Delft University.

While a good deal of careful planning would be required, both of these patterns would be relatively easy to develop and administer on a fairly large scale. Both have the advantage of built-in reciprocity, and meeting ECPD or other accreditation criteria should not present major problems. However, these two patterns do have the draw-back of denying opportunities for overseas work experience to a large number of co-op students: those who may be placed with employers in the United States having international business but whose field of study is of little interest to the employer in terms of overseas placement; those who are enrolled at schools which do not develop any school-to-school relationships; and those who might wish to gain experience in fields and/or countries which are not included in either of the two patterns indicated.

Ad hoc arrangements made by individual students - either by themselves or with the help of someone such as an interested professor with overseas contacts - will probably continue to meet the needs of some students as is now the case. However, at least one additional organized pattern needs to be developed. Part of this third pattern can - and should be - an expansion of opportunities in the "regular" IAESTE program, not only in terms of the total numbers of students involved, but in terms of a greater number of placements with non-summer

starting dates and for periods longer than 8-10 weeks. This is already happening and we would expect to see that trend accelerate over the next several years. This is not the whole answer, however, for it is clear that the fields of study routinely included in the regular IAESTE student exchange will not be expanded much beyond those in engineering, architecture, agriculture, mathematics, and the sciences except for occasional special cases.

Furthermore, the nature of the traditionally-defined IAESTE exchange is such that it would be difficult for the student's school to play its normal role in the structuring of the content of the work assignment, in supervision during the work period or in evaluation at the end of the placement. Thus, while we are prepared to do all we can to increase the extent to which co-op students can gain access to overseas work assignments through the regular IAESTE exchange, we recognize that there are limitations in this area - especially in terms of the role of the student's school - and that this is only a partial answer at best. We do stand ready to work with and assist other groups in exploring ways in which overseas work experiencs can be made available to <u>all</u> co-op students.

Let me turn now to the kinds of services and programs we expect CICEE to offer. These can be placed in two general categories - Administrative Services and Orientation/Facilitative Services.

As Gordon Lancaster has suggested, there are a number of essentially legal and procedural matters which must be dealt

with if work exchanges of any kind are to operate. These revolve around the fact that the individual is being employed and that he/she is not a citizen of the country in which the employment occurs. This involves matters such as visas and/or work permits; applicability of national social security and/or health insurance schemes; the tax status of the wages paid to the trainee - both in the host country and in the individual's home country; departure clearances at the end of the work period; and miscellaneous items such as driver's licences, worker's compensation coverage, and unemployment insurance.

In the case of foreign trainees coming to the United States, there is also the matter of securing a Social Security Number for the individual since almost all employers now need this for the operation of their payroll system, regardless of the individual's liability for tax with-holding. The procedures related to the application for a Social Security Number by a non-citizen are fairly cumbersome when the individual applys in his/her own home country and as much as three months can elapse between submission of the application and receipt of the number. If the individual waits until arrival in the United States to apply, anywhere from 4-8 weeks can elapse before the number is available - assuming all goes as it should! Over the last year, we have worked out a procedure with the Social Security Administration under which all trainees coming to this country under our sponsorship have their applications processed through our office with the number being available, in most cases, before or within 10 days after the individual's arrival at the work location.

Health and accident insurance must be arranged for all trainees - both American and Foreign - which is both adequate and fully applicable in the foreign location. The matter of insurance presents a particular problem to be dealt with in the case of trainees coming to the United States from countries where currency controls make it impossible for the student to secure insurance before leaving home.

Suitable visas and/or work permits constitute the single most crucial element in the entire area. Employers, schools, and students may all be in full agreement with all aspects of an international Co-op exchange, but if the students concerned cannot gain admission to the country in which they are to work, there is no program.

Over the last 10 years, we have seen a steady increase in both the amount and complexity of the paperwork related to securing visas for American students placed in other countries. We now work routinely with the Washington embassies of a half dozen countries on matters related to visas/work permits for American students and I would expect to see that number at least double in the next 5 years with respect to just the European countries alone. Such "routine" contact involves our stocking supplies of appropriate forms, giving students detailed instructions on the completion of their visa applications, and physically submitting passports with visa applications for processing on behalf of students.

Theoretically, it would be possible, of course, for individual students or their schools to deal with such matters on

a direct basis without "third party" intervention. However, I would suggest that trying to develop regular relationships between Urbana and various consulates general in Chicago (or Minneapolis or New York, depending on how the country concerned splits up geographic responsibility for its offices in the United States) is hardly the most efficient use of a school's resources. Furthermore, while we, as a national organization, can work with embassies on behalf of students irrespective of the school or home address of the student, some countries require the individual applicant to deal with the consulate general serving the person's home or permanent residence address. Thus, a student at Auburn, for example, could be faced with the necessity of seeking the proper visa or work permit through a consulate general in San Francisco and not Atlanta.

In the case of foreign students coming to the United States to undertake work assignments, there are essentially two options, neither of which can be arranged by the student or the student's school. The first option would be for the student to be admitted on the basis of an H-3, Industrial Trainee, Visa. In this case, the employer must file an I-129B petition for the trainee with the District Office of the U.S. Immigration and Naturalization Service which has jurisdiction over the work location. If all goes well, a decision may be forthcoming within 6-8 weeks, but I have known of cases that went for 6 months before a decision was made. Some of our corporate participatns can speak better than I on the H-3 process and I hope that people like

Bill Kucker, Bob Burgstrum and others will comment on this tomorrow. In the meantime, for those of you who have not encountered the H-3, seeing the I-129B might be instructive.

The second option is for the students from overseas to be admitted on the basis of the J-1, Exchange Visitor, Visa. The J-1 is a fairly complex visa with a number of different internal categories depending on both the nature of the sponsor and the program of activities to be undertaken by the individual while in the United States. I will not attempt to discuss this in detail - especially not with Tony Cook in the room! Suffice it to say that: (1) foreign co-op/sandwich students coming to the United States for a work period would have to be admitted in the "trainee" category of the J-1 for while they may be students in their own country, they are not "students" during their stay in the United States as far as immigration law definitions are concerned; and (2) the U.S.-based organization which assumes legal sponsorship responsibilities and which documents the individual's stay must have an Exchange Visitor Program Description which specifically allows admission to the United States for purposes of practical training employment. Parenthetically, I would note here that foreign students admitted to U.S. schools for full-time, academic study on the F-1 (Student) Visa or in the Student category of the J-1 Visa can apply to the Immigration Service (if documented by the school) for practical training employment in 6-month increments after completion of the academic program. In short, there is no way in which the F-1 Visa or the Student

category of the J-1 Visa could be used for the students we are discussing here.

In theory, Tony Cook's staff in the International Communication Agency could authorize any number of sponsoring organizations (educational groups, trade associations, professional societies, etc.) and/or any number of individual colleges and universities to conduct Exchange Visitor Programs which would involve original admission to the United States for the sole or primary purpose of practical training employment. Let me underline the words "in theory", however. As a matter of practical political and operational reality, I see no evidence to suggest that 50, 100, or 200 schools and/or 50-100 trade associations and professional societies are likely to be granted Exchange Visitor Program Designations which permit original admission of foreign nationals for the sole or primary purpose of practical training employment. Indeed, the events of the last several years suggest just the opposite and I hope that Tony Cook will comment on this tomorrow morning.

Before leaving the visa question, I want to make one further point. While IAESTE/US is presently almost the only organization having Exchange Visitor Program Designations which would permit full-scale co-op/sandwich exchanges immediately, the practical training area (including co-op/sandwich exchanges) needs to see the development of a group of private sector organizations which are capable of operating quality programs in a professional and competent manner. I would suggest, however, that practical training programs, by their very

nature, have a far greater potential for abuse than is true of other types of international educational exchange. Thus, I do see a need for limitations, controls, and carefully developed criteria for the operation of international practical training programs co-op/sandwich exchanges or otherwise.

The items which make up the group of Orientation and Facilitative Services are relatively straight-forward and do not need much elaboration. Included here would be things such as information and assistance with travel arrangements; development of pre-departure orientation materials for both students and employers; development of either a separate edition or a supplement to our monthly trainee newsletter specifically geared to the needs and interests of co-op/sandwich students; and information for employers on matters such as tax withholding, etc.

Port-of-entry arrival assistance is routinely provided, when requested, to all IAESTE trainees by the International Student Service and our regular relationship with ISS would need almost no modification to include any number of overseas co-op/sandwich students arriving at any port-of-entry in the United States. While not yet fully implemented, we have also had discussions with ISS, which is a service of the National Board of the YMCA, about possibilities for placing trainees with American families in the immediate area of the work assignment for the first 3-4 days of the trainee's stay.

Orientation to and involvement with the local community at the work location is an important aspect of the co-op/sandwich

total "real-world" learning experience. Like many other national educational exchange groups, we are affiliated with the National Council for Community Services to International Visitors (COSERV) which includes local international visitor hospitality groups in some 85 cities. Placing both the student and the employer in touch with the local COSERV organization can be done on a routine basis as easily for co-op/sandwich students as we now do for other trainees.

Let me turn now to the question of staffing and funding of CICEE. As I indicated earlier, the re-organization proposal to be submitted to the IAESTE/US Board in September will recommend establishment of CICEE as part of the new organization's student exchange activities - the other major component of which would be the "regular" IAESTE student exchange. Some of the administrative procedures, publications, etc. needed would clearly be appropriate to both with little or no modification. At the same time, there are aspects to each which are unique and each would operate as a distinct and identifiable entity.

Initially, one full-time professional person would be responsible for the cooperative education area, with appropriate secretarial support. Regardless of the size of the staff, initially or in the future, personnel assigned to CICEE would be expected to be fully conversant with the philosophy, operating procedures, and evaluation criteria in the field of cooperative education. Appropriate individual and institutional memberships would be actively maintained in organizations such as CEA and CED. In order to insure a substantial flow of information

between CICEE and the cooperative education field, the re-organization proposal will call for the establishment of CICEE Advisory Committe, the Chairperson of which would serve on the new organization's Board of Directors. With several experienced co-op administrators here, I hope that tomorrow's discussion will develop some guidelines for the nature of such an Advisory Committee - especially mechanisms for selecting its members.

The kinds of programs, services, and activities which I have described obviously require funding. First year, start-up costs on the staffing basis I have indicated would fall in the $30-35,000 range and I would anticipate a need to seek outside funding at about that level for at least the first year. However, CICEE can, and should, become largely self-supporting with-in a reasonably short time - 2-3 years - by using a mix of program fees similar to those we now use.

In the case of U.S. schools and U.S. employers, each wishing to use the CICEE services on a regular basis would be asked to become CICEE affiliates with a yearly "affiliation fee" - perhaps $50 for schools and $100 for employers. Effective with the start of the second year of operation, U.S. schools engaged in school-to-school exchanges would be asked to pay a service charge of $10 for each student from that school sent overseas the previous year. In a similar manner, employers conducting in-company exchanges would be asked to pay a service charge of $25 for each American student sent overseas the previous year.

American students placed overseas by way of either school-to-school or in-company exchanges would be asked to pay a processing fee of $25 - the same amount we now ask of students going overseas on offers which they have arranged for themselves through their own overseas contacts. Students placed through the regular IAESTE exchange would be asked to pay the same $50 application fee now in effect.

The last part of this possible self-supporting financial plan is a little more difficult to work out. In the regular student exchange, the American employers accepting trainees from other countries pay an administrative/program fee - $125 per opening in the case of educational institutions and $300 per opening in all other cases. In the Young Professionals Program, the employers do not pay a fee, but each trainee helps to cover program costs by paying a program fee equal to 5% of the wages being paid by the employer - this amount being billed to the trainee monthly.

As to which approach is more suitable, tomorrow morning's discussion will be helpful in working through this point. My own inclination at this point is to suggest that the employer fee be used - $50 per opening for schools which have affiliated with CICEE and $100 per opening for other employers which have affiliated. In those cases where the employer has not affiliated, the regular administrative fee ($125 or $300) would apply.

That then is the role proposed for IAESTE/US - or, more precisely, for the new successor organization. It is essentially a facilitating, service role to assist students, schools,

and employers in conducting international co-op/sandwich exchanges. It is a role which utilizes the knowledge and accumulated experience of an organization which has successfully conducted an international work exchange for 28 years which has involved some 2,500 American students going to other countries and a similiar number of foreign students working in the United States.

At the beginning of this presentation, I referred to three aspects of what I called the "internationalization" of cooperative education. Before closing this evening, I'd like to return to those three items for a moment.

The first point I mentioned was that of foreign students enrolled at U.S. schools as full-time co-op students. As with the subject of this consultation, there are a number of procedural questions which I feel have not been fully addressed by CED, CEA, or the National Association for Foreign Student Affairs (NAFSA) - whether individually, jointly or in consultation with the Office of Education, the U.S. Immigration and Naturalization Service, and the International Communication Agency. This is an area in which I know Don Hunt, for one, has a number of thoughts. Beyond the procedural questions, there are issues such as what the rationale for enrolling foreign students in American cooperative education programs really is. Is such education really relevant to the needs of the student's country and will completion of a co-op program in the United States lead to the same degree of employability and career advancement on return home as is normally expected of the American student who completes a co-op degree? Or, does enrollment of the foreign student in a co-op program contribute, either to the "brain drain" or to the frustration of under-employment on return home? Or, should issues such as these even concern the administrators of cooperative education programs?

As for the international dimension of the American co-op student's educational experience, I would submit that if cooperative education is to unite "the world of the campus and the world beyond it," as Knowles suggests, the "world beyond" must be seen as the world. And, if coperative education is to truly effect a "smooth transition from school to work," it must do so within the context of our increasing inter-relatedness with and dependency on other countries. Lester Brown's 1972 book World Without Borders provides a wealth of possible citations, but one in particular serves to illustrate what the future holds when he comments:[9]

> Of the thirteen basic industrial raw materials required by a modern economy, the United States was dependent on imports for more than half of its supplies of four of these in 1950: Aluminum, manganese, nickel and tin. By 1970 the list had increased to six, as zinc and chromium were added. Projections indicate that by 1985 the United States will depend on imports for more than one half of its supplies of nine basic raw materials, as iron, lead and tungsten are added. By the end of the century it will be dependent primarily on foreign sources for its supply of each of the thirteen raw materials except phosphate.

Equally startling perhaps is the statement contained in an August 1977 Congressional Research Service paper on "Multinational Corporations and the Future of Foreign Policy" that: "by 1975 multinational corporations accounted for one-seventh of the world's gross product and production outside the

headquarters nation exceeded their world trade."[10]

But I think the case for an international dimension to cooperative education, regardless of whether or not the co-op student has an overseas work experience, is best made in the report of the Task Force on Business and International Education, published by the American Council on Education's International Project in May of last year. Ormsbee Robinson was a member of that Task Force and I trust he will not object to my quoting a somewhat lengthy portion of the introductory "Overview" for I think it makes an extremely important point:[11]

> The magnitude of the impact of international firms on the U.S. economy is not generally appreciated. One should note first of all that total U.S. exports have recently passed $100 billion per year and that total foreign direct investment by U.S. companies has also recently passed the $100 billion dollar mark. Secondly, a large number of industries have very significant percentages of their operations overseas. In 1974, the U.S. drug industry, for example, had 31% of its operations abroad; farm machinery - 27%; construction machinery - 27%; tires - 22%; office machinery - 20%; soaps and detergents - 20%; motor vehicles - 18%; soft drinks - 18%; etc.
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> Of the 500 largest U.S. industrial corporations, at least 25 make more than 50% of their profits from their international operations. In 1974, these included International Harvester - 75%; Libby McNeill and Libby - 62%; Gillette - 61%; Otis Elevator - 60%; Pfizer - 60%; Coca Cola - 59%; Dow Chemical - 57%; Uniroyal - 57%; American Standard - 57%; IBM - 54%; and most of the major oil companies.
>
> In the other direction, there is a rapid growth of foreign investment in the U.S. A recent survey by the U.S. Department of Commerce revealed that in 1974, there was a total of $26.5 billion of direct foreign investment in the U.S., involving approximately 10,000 companies, employing over one million people and with total sales of $147 billion.
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> It is of overwhelming importance and should therefore be clarified at the outset to note that, in the context of this report, international business is not confined to doing business with foreign countries. In so far as the number of businessmen is concerned, this is only a small portion of the whole. International business includes all aspects of exporting and importing goods and services in addition to the operation of overseas offices, manufacturing and processing plants, mining operations, etc. Thus, when one speaks of educating or training people for international business, one refers to all those individuals whose job can be better performed if they are familiar with the economy, politics, or culture of one or more foreign countries, or if they have an understanding of international politics, economics, finance, or transportation. This includes a wide variety of people who work in various capacities in different types of firms, yet never leave the United States. Their business is affected by competition from imports, or utilizes imported parts or services; they correspond with foreign firms; they meet and deal with visiting foreign businessmen or government officials; their work entails an understanding of the foreign sales or foreign operations of their company; they must fully understand the environment in which their foreign operations are located in order to communicate, in the complete sense of the term, with company's overseas personnel.

Assuming that "internationalization" of cooperative education is valid concept, then it seems to me that the need for communication and contact between co-op/sandwich program administrators in various countries is a logical and needed part of the process. Several years ago, Gerald Smith and one of his colleagues in the U.K. - Gordon Onions of Brunel University - spent a month in the United States studying the U.S. cooperative education scene. In the report which they wrote for the U.S. - U.K. Educational Commission which sponsored their visit, they called for expanded opportunities for exchanges of administrators and development of other kinds of both informal and structured contacts between the co-op/sandwich systems of various countries.[12] Certainly this is an area which could use the development of new programs and services.

Several of us here this evening were participants in the IAESTE/SCOPE seminar in London in January of 1977 - Gerald Smith,

Gordon Lancaster, Bill Wilson, and myself. Those who were there will recall that over the course of the seminar, succeeding speakers sought to take the beginnings of cooperative education back further and further in history. I don't really know if he was the first co-op student or not, but the Chinese philosopher from the 5th Century B.C. - Kuan-tzu - made a comment which I think sums up what cooperative education is really all about:

> If you give a man a fish,
> he will have a single meal.
> If you teach him how to fish,
> he will eat all his life.

It is in that spirit that we propose to move forward with programs and services to help co-op/sandwich students learn not only how to fish, but to learn as well that there are many different ways to fish and many different kinds of fish to be caught.

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International Placements For Students Enrolled in Cooperative Education & Sandwich Training Programs: A Chronology of Related Events

Fall 1967

Discussion between Prof. F.R.E. Crossley, IAESTE Advisor at the Georgia Institute of Technology and Mr. James G. Wohlford, Director of the Georgia Tech Cooperative Division, regarding IAESTE overseas placements qualifying as one of the required work periods for the Georgia Tech co-op program.

January 1968

Criteria developed at Georgia Tech under which IAESTE overseas placements for Georgia Tech co-op students would qualify for co-op credit.

November 1968

Memo from Robert M. Sprinkle of IAESTE/US to the National IAESTE Committees of Austria, Germany, Netherlands, Switzerland, and United Kingdom indicating interest in placement of American co-op students in other countries for work periods which would meet credit requirements of the American schools enrolling the students.

January 1969

Discussions held during the annual IAESTE international conference in Paris between Sprinkle and heads of the National IAESTE Committees contacted in November, 1968, to consider problems and possibilities.

Subject of co-op/sandwich programs and the role of IAESTE considered briefly by the international IAESTE Advisory Committee.

Memo sent by Sprinkle to individuals at several U.S. schools indicating willingness of the 5 countries concerned to cooperate. This memo also stated absolute need for reciprocity - placements in other countries could not be expected without similar opportunities in the United States for students from the countries asked to accept American students.

1969-70 Program Years

Extensive joint employer contact efforts undertaken between IAESTE/US and Drexel University seeking openings in the United States to support requests to other countries on behalf of Drexel co-op students.

June 1972

A few placements resulted, but the economic slowdown of the period hampered efforts. Lesser joint effort also undertaken with Georgia Institute of Technology and Northwestern University.

August 1972

Subject discussed again by IAESTE/US Board and National Committee at suggestion of Prof. Stanley Greenwald of the IAESTE/US National Committee and then Director of Cooperative Education at Pratt Institute. Subject also discussed by Prof. Greenwald with Mr. Sinclair Jetter of the U.S. Office of Education.

Mailing sent by Prof. Greenwald from Pratt Institute to a number of schools suggesting possible consortium of schools to work with IAESTE/US in development of international exchanges for students in co-op programs. Schools to which mailing was sent included:

Georgia Institute of Technology
University of Illinois
Purdue University
Iowa State University
University of Louisville
University of Missouri at Rolla
Pratt Institute
North Carolina State University
Northeastern University
University of Cincinnati
Drexel University
University of Houston
Texas A & M University
Virginia Polytechnic Institute
Beloit College
University of Detroit
University of Massachusetts
University of Maryland
City College of New York
University of Akron
Cleveland State University
Northwestern University

Some interest was expressed, but other priorities at the time for the schools resulted in no further action being taken on the proposal.

March 1974

Bilateral British/German conference held in Stuttgart, West Germany, organized by the Deutscher Akademischer Austauschdienst (German Academic Exchange Service) on problems arising from large-scale efforts by British Polytechnics to place sandwich students with German Employers for one required work

period. While the major focus was on the British/German question, the wider question of international placements for sandwich students received some consideration.

June 1974

Major conference held at Brighton, England organized by the Central Bureau for Educational Visits and Exchanges, on Higher Education Exchanges between the United States and the United Kingdom. Co-op/sandwich exchanges constituted major subject of discussion. Sprinkle of IAESTE/US held discussions at Central Bureau on this subject the week before the Brighton conference and head of IAESTE(UK) attended Brighton conference.

Gerald Smith of Hatfield Polytechnic and IAESTE(UK) National Committee met in ZÜrich with Sprinkle during international IAESTE meetings. Planned visit of Mr. Smith and Prof. T. G. Onions of Brunel University to the United States in order to study U.S. cooperative education was discussed, together with the possible role of IAESTE in facilitating exchanges for students in co-op/sandwich programs.

October/ November 1974

Mr. Smith and Prof. Onions visited the United States for one month under sponsorship of the United States-United Kingdom Educational Commission ("Fulbright" Commission) to study cooperative education in the United States. Their itinerary included visits to the following American schools:

George Washington University
Drexel University
University of Detroit
General Motors Institute
Kalamazoo College
Roosevelt University
Triton Community College (Chicago)
Beloit College
Northwestern University
Antioch College
Southern Methodist University
Georgia Institute of Technology
Northeastern University

November 25, 1974

One day seminar held in London, organized by the Central Bureau for Educational Visits and Exchanges, which laid the initial groundwork for establishment of the Standing Conference on Overseas Placements & Exchanges (SCOPE) with secretariat located at the Central Bureau.

January 1975

Discussion on developments between June, 1974, and January, 1975, held in London between Sprinkle of IAESTE/US, John Grensted of IAESTE (UK), Gerald Smith, and Staff of the Central Bureau.

Role of IAESTE in co-op/sandwich exchanges discussed during annual international IAESTE conference in Salzburg. Proposal to hold a half-day seminar on this subject during the 1976 IAESTE annual meeting was accepted with Smith and Sprinkle asked to organize the seminar.

1974/1975

Survey conducted by Associate Dean Wanda Mosbacker of the University of Cincinnati on the growth and development of cooperative education outside the United States. Results of the survey were published in the JOURNAL OF COOPERATIVE EDUCATION, November 1975.

May 1975

Inaugural meeting of SCOPE held in London with steps being taken to proceed with writing of a constitution and related actions.

October 1975

Responsibility for administration of the IAESTE(UK) secretariat assumed by The Central Bureau for Educational Visits and Exchanges.

January 1976

The annual international IAESTE General Conference, held in Dubrovnik, Yugoslavia, included a half-day seminar on international exchanges for students in co-op and sandwich programs. The seminar was conducted by Smith and Sprinkle with representatives of 30 IAESTE National Committees present. Substantial interest was evident and the delegates present requested (1) that the international IAESTE General Secretary conduct a survey of national IAESTE Committees to gather information on the extent of co-op/sandwich programs in their respective countries; and (2) that the Central Bureau be asked to plan a special meeting on the subject to be held in conjunction with the January 1977 IAESTE annual conference with administrators of co-op/sandwich programs to be invited along with IAESTE representatives.

April 1976

Sprinkle, Donald Allen of Northeastern University, and Joe Hickey of the Council on International Educational Exchange conducted a meeting on international placements for co-op students during the annual joint meeting of the Cooperative Education Association and the Cooperative Education Division of the American Society for Engineering Education.

During that same conference, Dean David Opperman of the University of Illinois hosted a special breakfast meeting of some 20 employer representatives for the purposes of introducing Sprinkle and the IAESTE program.

May 1976 — A questionnaire, developed at Northeastern University, was sent to some 900 American schools seeking information on the extent to which their co-op students secure placements overseas. The questionnaire also asked for information on projected future interest in overseas placements for co-op students.

July 1976 — A bilateral Canadian/British conference on international work placements was held at the Unversity of Regina, organized by the Central Bureau for Educational Visits and Exchanges (UK), the Canadian Bureau for International Education, and the International Bureau for Professional Development. The seminar was addressed by the Commonwealth Secretary General who noted the role IAESTE might play in helping to facilitate international co-op/sandwich exchanges.

August 1976 — The President of the University of Regina hosted a follow-up, all-Canadian, conference out of which a new organization was created to be called "Opportunities International" based at the Canadian Bureau for International Education.

October 1976 — A Task Force of Opportunities International met in Ottawa and established 5 functional areas in which work would need to be done in order to undertake international co-op/sandwith placements on any large scale with these areas to serve as guidelines for cooperative development of services and programs on the part of Opportunities International, the Canadian Association for Co-operative Education, the Canadian Bureau for International Education, IAESTE (Canada) and others.

December 1976 — The results of the survey undertaken by the IAESTE International General Secretary were distributed to National IAESTE Committees.

January 1977 — As requested by the delegates at Dubrovnik, the International IAESTE Annual Conference in London was preceeded by a two-day seminar on international co-op/sandwich programs, organized by SCOPE. Approximately 100 delegates from 26 countries were present with about 1/3 being representatives of National IAESTE Committees.

Summer 1977 — Report of the IAESTE/SCOPE conference published by the Central Bureau for Educational Visits and Exchanges (UK) as issue No. 10 of Higher Education Exchange with wide distribution in the United Kingdom and other countries.

October 1977 — The Task Force Committee on Cooperative Education, convened by the National Commission on Cooperative Education at the invitation of the U.S. Office of Education, considered favorably the suggestion by the U.S. Office of Education that "internationalization of cooperative education" be undertaken " as part of an effort toward global education."

March 1978 — An Ad Hoc Committee of the Task Force convened in Washington by the U.S. Office of Education in cooperation with the National Commission adopted a "Working Paper on Cooperative Education" which discusses internationalization of cooperative education and recommends "that a special effort be made to develop international cooperative education."

June 1978 — Study begun by UNESCO on "engineering and technician schools having productive work as an integral part of their courses" as part of a world-wide study of innovative approaches to the training of engineers and technicians.

IAESTE/US consultation on "Administration of International Practical Training Exchanges" held at Wingspread.

May 1979 — "The First World Conference on Co-operative Education" to be held at Brunel University, London, organized by the British Universities' Committee on Co-operative Education.

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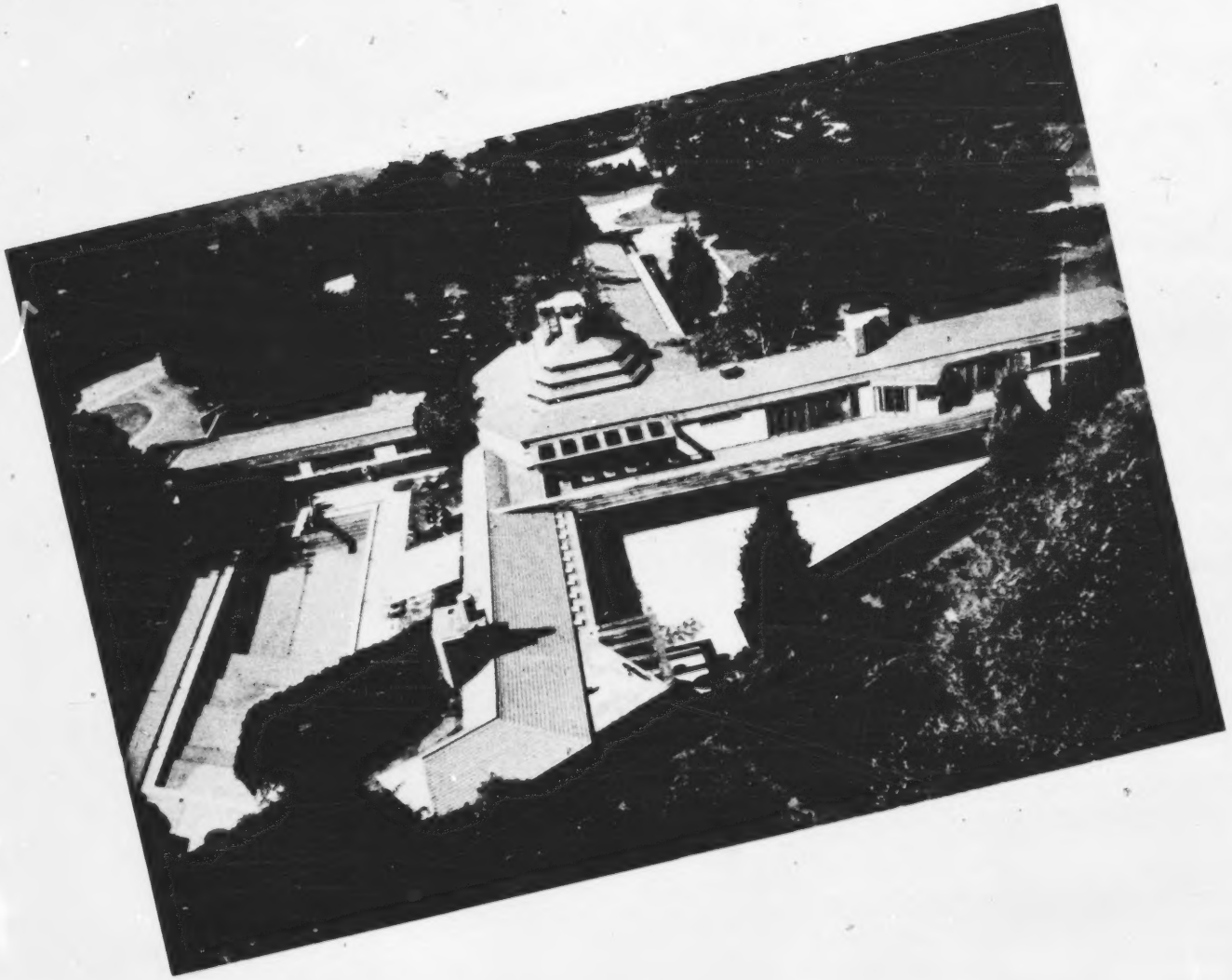
During the Wingspread Consultation on "Administration of International Cooperative Education Exchanges, two radio programs were recorded for the "Conversations from Wingspread" public affairs radio series.

International Cooperative Education (Program No. R-509) was moderated by Hal Walker and included Mr. Donald C. Hunt (United States), Mr. Gordon M. Lancaster (Canada), and Mr. Gerald Smith (United Kingdom). The subjects covered included: a description of cooperative education and what it is, the Canadian and United Kingdom definitions, extent of useage across the world, advantages for students, relevancy for academic institutions, financial aspects, acceptance by business and industry, differences among countries, job placement, range of disciplines, advantages of study abroad, student motivation and attitudes, campus permissiveness, student participation in academic affairs, and student awareness of cooperative education opportunities.

Cooperative Education (Program No. R-510) was also moderated by Hal Walker and included Dr. John Chase of the U.S. Office of Education, Mr. William Kucker of Alcoa, and Mr. Frank Vandergrift of Auburn University. The discussion included: a description of cooperative education and what it means, how it works for industry, government involvement, social benefits, college and university participation, student and employer advantages, some success stories, industry program objectives and challenges, the employer-student-academic relationship, advantages for the university, extent of industrial participation, essential program elements, women and minority participation, and the importance of student counseling and goals.

The two programs are available on a single cassette at a cost of $4.00 per cassette from: The Johnson Foundation, Racine, Wisconsin 53401



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"In the village of Wind Point, which touches the northeast corner of Racine, there stands a lighthouse on the shore of Lake Michigan. A short distance away is a building called Wingspread — it too is a lighthouse of sorts, casting a beam of light which penetrates the darkness of ignorance shrouding a true understanding of man and the universe in which he lives."

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WINGSPREAD

The building Frank Lloyd Wright called Wingspread, situated on a rolling prairie site just north of Racine, Wisconsin, was designed in 1938 as a residence for the Johnson family. In 1960, through the gift of Mr. and Mrs. H. F. Johnson, it became the headquarters of The Johnson Foundation and began its career as an educational conference center.

In the years since, it has been the setting for many conferences and meetings dealing with subjects of regional, national, and international interest. It is the hope of the Foundation's trustees that Wingspread will take its place increasingly as a national institution devoted to the free exchange of ideas among people.

The rolling expanse of the Midwestern prairies was considered a natural setting for Wingspread. In the limitless earth, the architect envisioned a freedom and movement. The name Wingspread was an expression of the nature of the house, reflecting aspiration through spread wings – a symbol of soaring inspiration.

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